Medical Times

A Monthly Journal of Medicine, Surgery and the Collateral Sciences

Published by THE MEDICAL TIMES COMPANY at 95 Nassau Street

VOL. XLIX., No. 6 | NEW YORK, JUNE, 1921 | Twenty Cents a Copy Two Dollars a Year

CONTENTS

Established 1872

Entered at the New York Post Office as Second Class Matter

Medical Times

A Monthly Journal of Medicine, Surgery, and the Collateral Sciences

Vol. XLIX., No. 6 | New York, June, 1921 | Twenty Cents a Copy, Two Dollars a Year

General Scientific

THE PHYSICIAN AND MUNICIPAL RED TAPE.

Jacques W. Redway, F.R.G.S.,
Mount Vernon, N. Y.

If he is unfortunate enough to become entangled in a case, where his fee must run the gauntlet of red tape and party politics a physician in the employ of a municipality is likely to encounter disagreeable experiences. Here is a case:

In 1918, during the progress of the war when conditions were badly upset and not far from a hysterical stage, sporadic cases of small pox broke out in a city not far from New York. The locality of the outbreak was much overcrowded; the surroundings were unsanitary; the population was almost wholly non-English-speaking. except for a colony of Negroes which formed about one-half the number. More favorable conditions for a sporadic outbreak to become an epidemic could not be found.

The physician who was called upon to take charge was a man of wide experience in the management of epidemics. He had been a health officer; he was an authority in the treatment of small pox. He responded at once to the call and was placed in charge of a building called by courtesy an isolation hospital. The building was a rough shack erected on the city's garbage dump close to the sewage disposal plant. It had been used previously for the isolation of poliomyelitis patients, and it had not been cleaned in the meantime. Into this place the patients and the doctor were unceremoniously dumped.

The doctor's testimony in the case concerning the "isolation hospital" was dramatic. His first task was "strong arm work"—cleaning the building, plumbing defective pipes, and removing the obstruction from a solitary toilet. Between jobs of this sort—the professional work of a physician—he prepared the beds and sick room for the patients, attending to their physical wants beside. After the strong arm work had been finished a nurse and one or more helpers were provided. The doctor was likewise informed that he must remain in isolation until the health officer released him. He did so. Thereby he was removed from his family and his practice for forty-eight days. In the meantime other patients were placed in his charge. He pulled them through the most loathsome and deadly of diseases; he likewise gave the counsel which prevented an epidemic of smallpox in the city.

Whether or not the disease was communicated to the locality as a part of the strategy of the war was not made known. A witness was on hand in the suit of the physician against the city who was ready to testify that still another attempt was being made to spread a malignant and deadly disease by the inoculation of animals in the neighborhood. It was a most critical situation, but the city escaped both dangers without suffering either.

One would naturally expect that a municipality which had passed safely through such an ordeal would honor the physician who had sacrificed himself to insure its safety. Was he thus honored? Oh, no; after being victimized by the trick which kept him in quarantine he was informed that his bill, one hundred dollars per day, was exorbitant and would not be paid. The matter dragged along for two years. Then the doctor agreed to take a much smaller amount in lieu of his claim. The aldermen passed a resolution to this effect; the mayor promptly vetoed it, thereby forcing the physician to bring suit. A few months later the suit against the city was tried.

The corporation counsel for the city did not defend the suit; a special counsel was summoned. During the trial the question of the amount of the doctor's charge was not contested. Counsel for the defense contended that, inasmuch as the doctor had not taken a civil service examination for the position, the city owed him nothing and that payment for the doctor's services would be illegal. The counsel's argument was elaborate and painstaking; it required nearly half an hour to deliver. The court's decision was equally elaborate and painstaking; it consisted of one word—"Overruled." It is needless to add that the verdict of the jury gave the doctor the full amount sought with interest for two and one-half years.

It would be hard to conceive a more damnably contemptible treatment imposed upon a human being. Not in the days of Tweed in New York, or Harrison gang in Chicago, or Abe Ruef in San Francisco was a filthier piece of trickery ever practiced by an official of

a municipality upon one of its servants. Incidentally evidence was brought out to the effect that, when the doctor undertook his job—a pleasant summer recreation, the defense called it—there was no mention of civil service examination. The contention was advanced at the trial merely for the purpose of beating the doctor out of his fee.

A municipality which permits party politics instead of prudence to determine the choice of its governing officials gets usually the administration it deserves but not necessarily one that it needs. Once upon a time the good people of Boriobula Gha were called upon to choose a Grand Vizier to administer their affairs. The choice lay between the wise but wicked fox and an ass. They chose the ass. "Alas!" they exclaimed when it was too late, "we have made asses of ourselves." *Haec fabula docet, etc.*

A LACTOSE OR DEXTRINE LADEN DIET, BACILLUS ACIDOPHILUS IMPLANTATION AND CLINICAL RESULTS.

N. PHILIP NORMAN, M.D.,
New York.

The work of Torrey and Coleman on the use of the bacillus acidophilus as a therapeutic agent in typhoid fever may be said to be the commencement of a new therapeutic era in medicine. Briefly stated, Torrey and Coleman observed that typhoid cases, in which aciduric organisms were absent, ran a very protracted course with tendencies to the usual complications of typhoid. In patients having an aciduric flora the course of the disease was cut short and the complications were decreased.

Kendall began making observations and has pointed out the possibilities of changing the intestinal flora from putrefactive to fermentative by the implantation of the acid-forming groups and has given to this form of therapy the name of Bromotherapy.

Rettger and Cheplin, of the Sheffield Scientific School, Yale University, in studying the effect of lactose on the intestinal flora have shown that it distinctly promotes the growth of the aciduric types, especially the acidophilus. They have further shown that in cases which were fed on lactose and given viable strains of the acidophilus by mouth that the intestinal flora could be simplified in from three to five days showing a definite predominance of the aciduric types over the putrefactive types.

Moreover, they have shown that the feeding of lactose with the oral ingestion of bacillus bulgaricus did not seem to influence their growth one way or another, and that dropping the administration of the bulgaricus with a continuance of lactose feeding had no effect whatsoever in perpetuating the growth of this parasite in the intestinal tract.

Therefore, it appears that intestinal colonization must follow along natural lines rather than artificial ones. Herter in his classical and monumental work also held the same opinion prior to the publication of his work which dates back to 1907. In my own work, the results to be obtained by the administration of bacillus bulgaricus alone never seemed to justify a therapeutic enthusiasm that could be founded on anything more tangible than a mental state designated as optimism. With the implantation of the combination of bacillus bulgaricus and acidophilus, good results were obtained and while producing striking improvement in cases previously unimproved by orthodox drug methods, they, nevertheless, left something to be desired both from the laboratory and clinical standpoint.

It is to be understood that the implantation of these helpful germs has been done in accordance with the method that I have advocated and practised for a period of three years; namely, a rapid detoxication of the organism by the removal of infection from their usual sites of occurrence between the mouth and the anus inclusive. By this method which I am advocating, *there is not a partial but a complete removal or correction of infection-sites throughout areas which are traditionally prolific as regards facilities for growing pathogenic bacteria.* I further hold that no examination of any case of chronic disease is complete unless one has searched the body for the presence of venerial infections and digestive tract infections. When I say digestive tract infections it is to be emphatically understood that examination begins with the teeth, the tonsils, the nasal passages, the gallbladder and ends with the colon. This method was first described by me in a paper entitled, "Infections of the Gastro-Intestinal Tract and Their Relation to Arteriosclerosis," which was read before the Sixth District Branch of the Medical Society of the State of New York, October 7, 1919, and published in the *New York Medical Journal*, July 3, 1920. Subsequent publications have appeared and are listed in the bibliography.

In the evolution of my work, I have increasingly tended to favor the acidophilus. Formerly, I was inclined to believe that the bacillus bulgaricus prepared the soil for the growth of the acidophilus. However, with better cultures of the acidophilus, used alone, I have found that their growth was very rapid if you placed in reach the proper food for them to live on. In other cases in which only the bulgaricus was used the growth disappeared from the stool within seven days after the last implantation. This has been conclusive evidence to me and supports Kendall's and Rettger's views to the fact that intestinal colonization must follow along natural lines.

Apparently from the dawn of civilization the bulgaricus has been grown on milk and is essentially a milk parasite. It, therefore, appears not only unscientific but illogical to attempt to do with an unacclimatized bacteria, as the bulgaricus, which is so easily done with an acclimatized bacteria as the acidophilus, as regards the controlling of infective processes of the digestive tract. In other words, we simply restore the bacterial flora of the colon with which the healthy baby began life and which was later destroyed through the dietary indiscretions and other abuses such as disease, habits, hygienic neglects and over-indulgences, by again establishing the predominance of aciduric bacteria, chiefly of the acidophilus type.

I have further found that the acidophilus which has been grown for generations and generations in the laboratory appparently lose a great part of their virule characteristics which is doubtless due to their having been grown so long a time in a non-competitive environment. Strains of the acidophilus which are not kept too long in a laboratory (non-competitive environment) seem to grow in the intestinal tract very much quicker than those which have been grown for a long while in a non-competitive environment. This point is one that is extremely important and one following the work will notice a distinct difference in results obtained from the cultures in which the bacteria has been isolated from the stool or what I call competitive environment.

Now that we have briefly outlined the importance

of a lactose and dextrine laden diet and the importance of the use of a freshly isolated culture of the bacillus acidophilus, an outline will be given of my method for a rapid detoxication and deinfection of the digestive tract.

However, it is no more than fair to those opposed to the practise of planting bacillus acidophilus and who advocate the planting of the colon bacillus to say a word concerning my impressions of colon bacillus implantations.

The colon bacillus, according to Herter, and I know of no better authority, is an organism which is well behaved when in good company and badly behaved when in bad company. In other words, a colon bacillus is like a mental defective—with a lot of potential good but incapable of governing themselves. My laboratory studies have led me to believe that this conclusion is a correct one. A colon bacillus when grown on a carbohydrate media behaves very well and does not produce indol. However, this same bacillus, when transferred to a proteid media, will be a prolific producer of indol. Personally, I do not believe indol to be as toxic as it has been said to be; however, there seem to be other or allied substances which are harmful and it is almost a rule to find indicanuria associated with a faint or moderate albuminuria. I had occasion to observe the relation of indicanuria and albuminuria while analyzing numerous specimens of urines of cardio-vascular renal patients. That the colon bacillus can be a pathogenic organism, no one versed in progressive medicine can deny. It is logical to assume that since this bacillus can become malignantly pathogenic it should only be used with discretion and entrusted into the hands of those well acquainted with the possible developments that may follow colon bacillus implantation, if they are placed in a pathogenic environment. My own feeling in the matter is this: b. coli being a known pathogenic organism deserves the same careful consideration which we accord other bacteria of proved pathogenicity. If we are to indiscriminately entrust the implantation of b. coli into the hands of a nurse, as is being done, there are sure to follow results which will not be gratifying to physician or patient. It is just as sane a procedure to allow a nurse to prepare and give tuberculin or to give vaccines made of sterptococcus or staphalococcus as it is to allow them to administer *b.* coli.

What is accomplished by *b.* coli administration? The colonic implantation of b. coli is probably similar to the injection of a vaccine into the body. In other words, the benefit to be obtained is probably due to the non-specific proteid stimulation of an organism injected in large dose into an individual suffering from an infection of that particular organism. It is claimed by exponents of the b. coli theory that b. coli is absent in the stool of those individuals for whom they recommend it. This certainly does not agree with my experience and if they were to irrigate their patient (which is nothing but draining the colon of its retained contents) they would find that b. coli would appear in their culture. Herter has called attentin to the fact that, in many instances, the bacteria are killed off and disintegrated in retained fecal contents. Therefore, for this reason, one is not justified in saying that *b.* coli is absent in a stool without first having drained the colon of its abnormally retained contents. It is obvious in many instances that b. coli will be absent when cultured from the fecal content of an undrained colon and present when cultured from the fecal content of the colon that has been drained. Moreover, it is questionable as to whether b. coli is ever absent excepting, perhaps, in virulent gas bacillus infections. It seems illogical in the light of these facts to recommend the implantation of b. coli in the number of instances for which it is said to be indicated when the indication for their administration is based upon the examination of an abnormally retained stool.

We begin by cleaning up the teeth, the tonsils, the nasal passages and gallbladder of infection, if there be any present. It is almost a rule that if a colon is infected that some other part of the digestive tract is also infected. If one inquires carefully enough into the history of the patient, especially as regards the occurrence of infection, one is naturally struck with the fact that the patient has had several bad teeth extracted or needs them extracted, has had or has pyorrhea, has been subject to repeated attacks of tonsilitis, or he may have a diseased or malformed nasal septum or diseased turbinates or some chronic catarrhal condition of the upper respiratory tract, or has suffered from biliousness or other vague unclassifiable syndromes usually called indigestion, which more or less represents an hepatic insufficiency or an hepatic over-sufficiency all of which denotes infectious process of some sort. In addition to these factors, the patient may give a history of the exanthemata, of typhoid, of pneumonia, influenza, grippe, malaria and other infections all of which have left their scar upon some structure of the body. Therefore, one may build up a successive chain of infection evidence which finally terminates in a colonic infection which hitherto has been almost forgotten as an infection site.

Infection of the teeth should be attended to by a well-trained dentist. Nose and throat conditions, of course, are attended to by men specially qualified in this work. I confine my own work chiefly to infections of the gallbladder and colon. The method which I use to combat gallbladder infection is patterned essentially after the method that has been so admirably advocated by Lyon, of Philadelphia, and if one be interested in this method he is referred to the writings of Dr. Lyon, which are cataloged in the bibilography of this article.

The colon is subject to infection not alone of its contents but of its tissues. Anyone familiar with the histological anatomy of the intestinal structures knows that the lympatic tissues of these structures are very abundant and extensive. In fact, it would require a great number of tonsils to equal in amount the lymphatic tissues of the intestines. You all know what a bad tonsil can do and how easily it can be infected. The same holds true of intestinal lymphatics, and it should be obvious to anyone that this great area must be carefully cared for. The best way to treat it is by free drainage and the establishment of an aciduric flora, through implantation of this flora and with a lactose or dextrine laden diet. When this condition has been brought about, the liability of the intestinal tissues being attacked by pathogenic bacteria is minimized to the extreme. The acidophilus I believe to be the best parasite for this purpose, as it is a great acid-former, and it is a well-known fact that, in the presence of acids, pathogenic bacteria will not grow.

At this point, it is fitting to answer a question I have been asked on several occasions,—Doesn't your aciduric bacteria in time produce so much acid that a condition known as acidosis is brought about? This is impossible. To begin with acidosis is a misnomer.

If the body becomes acid, death is the coincident consequence. Acidosis really means a decrease of the body's alkali reserves. This condition is not associated wth health but always with toxemias and toxemias are never associated with b. acidophilus but with other organisms of known pathogenicity. Another point,—we know that a bacteria will grow only so long in a culture media because when the culture media becomes strongly enough saturated with the excretory products of this bacteria that there will first be an inhibition to their growth and later, death. In a measure, this applies to the acid-formers in the colon and the degree of acidity of the colonic contents more or less exerts a control over acidophilus activities. In addition to this chemical regulation, the acid that is produced in the large intestine is the normal stimulator of colonic peristalisis and we find that instead of having one movement a day, we have two or three a day, and in this way a great number of acidophilus are discharged in each evacuation and the concentration of the acid is also diminished by the free evacuation. Thus it will be seen that the regulation of the degree of acidity of a stool, as well as acidophilus activity, is a self regulatory mechanism founded upon definite biological laws.

My method of attacking the colon infections are as follows: A suitable apparatus consisting of two percolating jars of three and one gallon capacity, respectively, is necessary. These jars are connected through rubber tubing to a control table on which are located the control valves. There is a valve for each jar so that either jar may be turned on or off. The pipeings from these valves lead to a T and from thence to another T in which a three-way valve is placed. The colon tube is attached to the tube leading from the three-way valve and should be thirty-three to thirty-six inches in length, about ¾ inch in diameter, of thick wall and resilient in character. The usual Lockwood design with a stiff tip is well designed to meet the requirements. The patient is placed on his left side with his knees drawn upwards. The control valve from one jar is opened and the three-way valve set in a position so as to allow a flow of water into the colon tube. The air in the tube is then expelled and when the water is flush with the tip it is then clamped off with dressing forceps. The tip of the tube is then lubricated with vaseline and also the anus. The tube is slowly introduced until it passes both sphincters when the forceps is removed and the water flows into the colon. When the patient complains of a sensation of "wanting to move his bowels", the three-way valve is switched to the position in which the water from the jar is cut off and the water from the colon syphons into a waste jar. As the water is being released, gradually insert the tube until the water slowly cease to flow or stops abruptly. If it abruptly ceases to flow, withdraw the tube two or three inches and then begin to balloon out the intestine with hydrostatic pressure again, until the patient complains, when it is again released and the tube shoved up a few more inches. This is successively repeated until the tube is passed as high as possible. I am now using only an isotonic saline solution at a temperature of 36 C. followed by an isotonic solution at the end of the irrigation (drainage) at a temperature of about 28 or 30 C., and of which the patient is made to hold a quart or so. The cold water has a tonic effect on the colonic musculature and facilitates a rapid, thorough evacuation of the solution as well as of the fecal contents. After the expulsion of this, the patient is then implanted with a solution of lactose and agar-agar which, when retained, furnishes an ideal culture media for the acidophilus. However, within the last five months, I have been planting the acidophilus immediately after the first drainage and keep this procedure up until the laboratory evidence conclusively shows a good acidophilus growth. Thereafter, the drainages are kept up purely for the purpose of free drainage and are continued until the patient's clinical manifestations have cleared up. In addition to these drainages and implants, the patient is placed upon a fruit and vegetable diet with the exclusion of practically all animal proteids excepting those contained in milk or the white of chicken, and is fed ten to twelve heaping tablespoonfuls of lactose daily.

In some instances, I find it best to administer the lactose in milk which has been flavored with vanilla or lemon extract. Some patients substitute the lactose for powdered sugar on fruits and cereals. In the case of a few patients who seriously object to lactose, I substitute the equivalent of a package of Dromendary dates and a small package of figs daily for the dextrines.

After the detoxication and the dietary regulations have been instituted, the patent has been given the maximum opportunity for regaining his health, as well as for the future supervision of the harmful bacteria in the colon, by establishing the predominance of the acidophilus in the flora of this cavity.

Clinical results have borne out this cause and effect theory and I shall briefly cite two cases selected from my practise which will, perhaps, be of clinical interest to the readers of this article:

Case Number 1.—Patient referred by his family physician and was first seen September 4, 1920. Male, age 46. Complaints were marked dyspnea, with or without exertion; coughing, with the expectoration of frothy bloody mucus; pain in the precordia; pretibial edema; inability to lie down because of the cough and marked abdominal distention. In February, 1920, the patient had gone thru a complete cardio-vascular examination which included X-ray and fluoroscope of the heart, electrocardiagraph, polygraph, serum Wassermann, complete blood count and urinalysis. The X-ray demonstrated a very large heart with evidences of pulmonary edema. Electrocardiagraph revealed a definite right sided predominance. The blood Wassermann was one plus and the urine showed a moderate trace of albumin. Because of the one plus Wassermann, he was placed on anti-syphilitic medication by the consultant who at that time examined him. He grew progressively worse and in desperation another very well-known consultant and heart specialist was called upon to pass judgment. This gentleman corroborated the findings of the other man excepting the one plus Wassermann and placed the patient on digitalis, but in spite of the drug, he became progressively shorter of breath, coughed more and his edema was gradually accumulating to the point that no hope was held out for him. He came to me as a last hope measure and an examination disclosed the same physical findings that have been previously stated excepting that they were in a more advanced stage.

He had not slept for seven months excepting in an upright position; his lips, ears and hands were cyanotic; hands and feet cold and presented every characteristic of a terminal cardio-vascular condition. I told his physician at the time that too much time had been spent on the graphic demonstration of the extent of the structural and functional damage of the disease and that we would have to busy ourselves with finding the causes which were operating to produce the condition.

Infection history disclosed that he had had three abscessed teeth many years ago and had been subject to repeated attacks of tonsillitis and had pyorrhea for several years. In addition to this, he suffered from hemorrhoids which, in my opinion, are the direct result of infection in the majority of instances.

I examined his teeth and found them, as the patient later expressed it, "full of jewelry," with permanent bridge work which produced extensive ulcerations of the gums underneath the bridge work, and in addition to this, he had several teeth which appeared abscessed. His tonsils were inflamed and

slightly enlarged, evidently secondary to his dental condition. While the liver was markedly enlarged, I could not detect any presence of a gallbladder infection. Abdominal examination revealed a large thick-walled colon and the characteristic distress associated with colon infection was elicited on deep, but gentle, palpation. The stool examination showed that there was a marked acidity (butyric) and toxicity with marked albumin putrefaction with a predominance of gas bacillus in the flora associated with *b.* coli and streptococcus.

He was advised to have his teeth cleaned up the next day. This we did, realizing the danger of such a radical procedure, but, in view of the urgency of the man's condition, it was thought best to risk it and within four days his dental condition had improved greatly. Within two days after the consultation, colonic drainage was instituted and kept up until his fecal flora was simplified and dominated by the aciduric types. Improvement began with the removal of teeth and within forty-eight hours after the first colonic drainage, he was able to sleep in a recumbent position, without morphia and little coughing, throughout the night, the first time in seven months. This man has been kept under supervision ever since. In December, 1920, he was feeling so well that he began breaking his weekly appointments and broke over his diet regulations which constituted a restriction of meat, fish, eggs and alcohol, and in January, 1921, got into a fist fight in which he was successful, not alone with his adversary but in breaking his compensation. The fight ended by his chasing his adversary for half a block. A couple of days after this when changing a tire on his car, he noticed that he began to cough, had shortness of breath on exertion and had pain in the region of the precordia. He came in and he was again gone over for infection. His teeth were clean, his tonsils in good condition, gallbladder appeared negative, but the stool examination showed that his aciduric types had been killed off by his indiscretions. He was immediately cleaned out again, replanted and placed on his diet, and in addition was given twelve tablespoonfuls of lactose daily with *b.* acidophilus by mouth. He progressively reacted and to-day is a wiser man by his experience, for he has learned that he can control the infection in his colon by living up to his dietary instructions and that the presence of colonic infection is directly responsible for his bad health. He is now active in business, feels well and has no handicaps except dietary restrictions, if we wish to consider that as a handicap.

Case Number 2.—Female; age 38. This patient was first seen August 12, 1920. She complained of being very nervous with emotional outbursts; insomnia; nausea in the morning; cramps in the lower extremities; a feeling of exhaustion in the morning; lack of physical reserve; palpitation with or without exertion; precordial pains with the palpitation and with attacks which she described as "fainty feelings." She also suffered from sick headaches and became markedly distended with gas after meals. This patient gave a history of having been well until two years ago. At that time she contracted influenza which was complicated by pneumonia and her heart developed signs of weakening, so much so that it was stimulated by the usual stitmulants. After getting over this attack, and being conscious that something was wrong with her heart, she went to a heart specialist who did a complete cardio-vascular examination and she was treated along orthodox lines for two years, having first been sent to Watkins, N. Y., for Nauheim Baths. While in Watkins she improved under the rest, elimination and systematic supervision.

However, upon her return to her normal life, toxin production exceeded elimination and soon she was worse than ever. This kept up until she became dissatisfied with the treatment she was receiving and consulted me. Examination of the patient disclosed a typical post-influenzal cardiac syndrome, with which all of us are familiar. Search for infection revealed infected teeth, which were treated successfully without extraction, unhealthy tonsils which have cleared up under dental and tonsillar hygiene and a slightly enlarged liver with indistinct evidences of gallbladder infection which was evidenced by the morning nausea and the bilious character of the vomitus. She had been constipated for a number of years. The stool examination revealed a marked carbohydrate fermentation, the presence of a large amount of toxic elements and mucus with a flora predominated by aerogenes capsulatus and streptococci with an apparent decrease of *b.* coli; hemorrhoids were present. After the teeth had been cleaned she was placed on an active course of colonic drainage with the simplification of her fecal flora and her symptoms have all disappeared except for a slight amount of nervousness and an occasional neuritic attack of the right arm. She has been able to resume her duties and social activities for which she was totally incapacitated for over a year. Her intestinal flora is controlled by a lactose laden diet and oral administration of *b.* acidophilus with occasional drainages—her constipation is gradually disappearing.

These two cases are impressive because of the fact that they were both examined and treated by a consultant whose reputation as a heart specialist is wide-spread. These cases are not presented in criticism of this physician's method but rather to contrast the methods used in treating the cases as well as to contrast the results. Everything known to ultra-scientific medicine, from a cardiological point of view, had been used for the determination of the extent of the structural and functional damage present. In other words, a determination was made of the disease process and the disease process was the object of therapeutic attack. In both these cases the teeth, tonsils, gallbladder and colon had never been investigated, for too much attention was being paid to the result of the infections (disease or damage) rather than to the finding of the infections and their corrections.

What I have accomplished is not presented in a spirit of showing how wonderful I am but to impress upon one that the treatment of disease must be based, as nearly as it is possible to approximate them, upon cause and effect. A number of men would have looked for dental and tonsilar infection; a few men for teeth, tonsils and gallbladder infection and very occasionally a man for infection of the teeth, tonsils, gallbladder and colon. *The method which I advocate is one which includes not a partial but a complete search for digestive tract and venereal infections.* If everyone were to adopt this procedure, I am positive that their results could not only be improved but hastened.

In the future, we will hear less of heart specialists, stomach specialists, skin specialists, etc., and more of specialists patterned after the genito-urinary specialists and pediatrists, who have, perhaps, made vaster strides in relating cause and effect in the practise of medicine than any of the other specialists and whose treatment is directed directly to the elimination or correction of the cause.

Coleman, W.: *J. A. M. A.*, 1917, lxix, Aug. 4.
Herter, C. A.: Bacterial Infections of the Digestive Tract, Macmillan & Co., 1907.
Herter, C. A.: Biological Aspect of Human Problems. Macmillan & Co., 1911.
Herter and Kendall: *Journal of Biological Chemistry*, 1910, vii, 203.
Kellogg, J. H.: The Itinerary of a Breakfast. Funk & Wagnalls, 1920.
Kellogg, J. H.: Auto-intoxication and Intestinal Toxemia. The Modern Medicine Publishing Co., 1919.
Kendall, A. I.: *Boston Med. and Surg. Jour.*, 1911, clxix.
Kendall, A. I.: *Am. Jour. Med. Sci.*, 1918, clvi, No. 2.
Kendall, A. I.: Textbood of Bacteriology, 1916, page 596.
Lyon, B. B. Vincent: *J. A. M. A.*, Sept. 27, 1919.
Lyon, B. B. Vincent: *Am. J. Med. Sci.*, 159: 577, April, 1920.
Norman, N. Philip: Infections of the Gastro-Intestinal Tract and Their Relation to Arterio-sclerosis, *N. Y. Med. Jour.*, 1920, July 3.
Norman, N. Philip: Rationalizing the Treatment of Chronic Diseases, *N. Y. Med. Jour.*, 1921, April 6.
Norman, N. Philip: The Special Therapeutic Management of Arteriosclerosis and its Relation to the Etiology of This Disease, *N. Y. Med. Jour.*, 1921, May 18.
Norman, N. Philip: A Modern Method of Colonic Drainage, *American Medicine*, 1921, May.
Rettger and Cheplin: *Journal of Biology and Experimental Medicine.*
Rettger, L. F.: *Journal of Experimental Medicine*, 1915, 21, 365.
Rettger, L. F.: *Scientific Monthly*, 1917, 5, No. 1.
Rotch and Kendall: *Am. Jour. Dis. Children*, 1911, 230.
Torrey, J. C.: *Journal of Infectious Diseases*, 1915, 15, 72.

265 West 72nd Street.

PRACTICAL THOUGHTS ON THE STATISTICS OF CARCINOMA.

JOSEPH B. WEIGHART, M.D.,
New York.

The statistics presented in the medical and lay press in this country regarding the increasing death rate from carcinoma have caused me to give a great deal of thought to this condition. To prevent possible error, I have considered it wise to examine the correctness of the impressions from these statistics,

and at the same time make an effort to allay the terrible fear with which the public is becoming obsessed. The figures are accepted as correct in their objective, but they seem to me to be applicable to conclusions only in a relative sense. We must consider the absolute and relative values of statistics very critically.

During certain years, especially after the activity of a number of misguided surgeons, who considered surgery a specific for carcinoma, the death rate from this condition was greatly increased. No surgeon can claim that he has cured permanently an important number of cases of carcinoma. In some cases he may have prolonged life a few weeks, months, or even years, and in some cases he has accelerated the growing of the recidiving tumor, causing death much sooner.

What concerns statistics, however, is that practically every case operated on for carcinoma, finally appears in the statistics as having died from recidives or metastases. The surgeon has not decreased the death rate figures, but has only postponed the time of death. Practically every case becoming carcinomatous will finally appear as having died from carcinoma in the statistics. This means that the statistics on morbidity of carcinoma and mortality of carcinoma are almost identical when larger periods are considered, but this is not the main point. The increasing morbidity and mortality coincides with the fact that the average age of death is higher at present than it was a few decades ago. The average number of people reaching the age in which carcinoma occurs is greater.

The natural limit of life and functioning of the human organs is from about a hundred and ten to a hundred and thirty years. It is the exception that a human being reaches this age. Most people die from an intercurrent illness. There are a series of intercurrent illnesses which menace life, each occurring during the succeeding decades of life. These conditions, which often cause death prior to the forty-year period, have been so modified by prophylactic measures, hygiene and mechanical methods, that a greater number reach the age where the danger of carcinoma decimates mankind.

The greatest mortality in the past has been within the first year of life, but owing to our increasing knowledge of hygiene and care of babies, this percentage has been greatly reduced, as has also the death rate from tuberculosis in the young adult. The average number of children passing through the first ten years of life being greater, the average male reaching thirty being greater, the minor dangers of morbidity and mortality of the first four decades of life have been reduced, and therefore a greater number of people reach that period of life in which carcinoma occurs.

Therefore, any figures derived from death certificates showing that the tendency to carcinoma is increasing, must be necessarily incorrect. In the past, the above dangers prevailed. Preventative treatment has greatly reduced them, and it was only after this reduction that the importance of a preventative fight against carcinoma could be perceived. The fact of the increasing percentage of death caused by carcinoma begins to call now emphatically for preventative consideration against carcinoma, the same as the death ratio of babies called for a better milk supply in the past.

It would be necessary to carefully prepare statistics of the past and of the present, including only those who have carcinoma, and those who have died from carcinoma over forty years of age, to get a clear idea if the inclination of mankind to carcinoma has really increased. Even these figures would be far from accurate, as carcinoma of the stomach, of the uterus, rectum and often external tumors, have not been diagnosed, or have not appeared in the records, as the cause of death. Peritonitis, diseases of the female genital organs, septicemia from ulcers, etc., have been given as a cause of death in older certificates, which, with later methods of diagnosis, would have been called carcinomata.

Correcting statistics may be important to a student studying the progress of the practice of medicine, or for a lecture at an annual medical meeting, but a busy practicioner has very little time to devote to them. For the practitioner, the facts are sufficient that the modern general conditions are calling the attention to carcinoma, the same as it was called to tuberculosis a few decades ago. The errors in statistics will have no bearing on later recommendations for treatment and prevention of carcinoma, for my part.

There may also be several differentiating errors.—For instance, we find carcinoma more frequently in the Hebrew than in the Irish. I have seen many cases of carcinoma of the rectum in the Hebrew but seldom in the Irish, and it is within the last twenty years that we have had an immigration of millions of Hebrews from Russia. This may cause a change in the percentage of the population inclined to carcinoma from a racial standpoint.

In my opinion, we cannot stop the cause of the increasing percentage of carcinoma in the death certificates. What we need to consider is the increasing importance of carcinoma for general morbidity and cause of death, in comparison with the lesser degree of importance with which it was regarded in the past.

Our improved diagnosis and improved treatment for prevention is a more practical matter, and is not the subject of this brief paper. It only clears the field for consideration of the nucleus of the question involved,—to prevent the preventable development and death from carcinoma.

175 West 72nd Street.

THE THERAPY OF YEAST WITH NOTES ON ITS VITAMINE-AMINO ACID CONTENTS.

FRÉDÉRIC S. MASON, M.D.,
New York.

While brewers' yeast has been known from remote times as a common remedy for boils, and French preparations have been extensively prescribed in Europe and America for twenty years, it is only since yeast in connection with vitamine idea has been commercialized, that it has become a popular fad with the public. We read that yeast makes "clear, healthy complexions," "removes pimples and blackheads"; in fact, for those who acquire the yeast-cake habit, skin blemishes are a thing of the past.

An enthusiastic advertiser recommends yeast as a basis for a tooth paste, and if we are to believe the magazine articles, yeast is a panacea for "mal-nutrition," since the vitamine contents "complete the diet," "restores weaklings to robust health" and "weak, puny children become giants." Such suggestive catch words impress the minds of patients and make them expect that their medical adviser will recommend this "concentrated nutrition," especially as some of the claims made are supported by the writings of authorities.

Yeast as a therapeutic agent has been neglected heretofore by physicians, chiefly because of the difficulty of obtaining an active, palatable, concentrated preparation

free from the frothy disagreeable taste and odor of brewers' yeast, which is extremely difficult to keep even for a short time, without secondary decomposition by bacteria which break up its amido-acid constituents.

A certain volume of yeast must be given in order to obtain nutritive or therapeutic results, and in commercial preparations concentration is sacrificed, by the addition of rice or some other starch.

Yeast cells *(saccharomyces cerevisiæ)* proliferate rapidly in the presence of sugar, converting malted grain, corn, rye, barley and other seeds by so-called fermentation, into alcohol. When cultivated in proper medium,—yeast is one of the most concentrated and easily available sources of water-soluble vitamines and since these represent definite amino-acid entities and are an available source of the constructive proteid of food, yeast may in the future serve as a basis for the chemical preparation of artificial foods.

Before progress can be made in this direction, we must find some practical method of estimating the vitamine-amino-acids-enzyme percentage in yeast cells and separating these active principles from inert material. Up to the present writing, no practical method of establishing a standard has been worked out. It could be roughly estimated from the nitrogen contents of the yeast cells by he Kjeldald method for the determination of nitrogen in albumenous substance or better by Gunning's method for amido-nitrogen as employed by chemists engaged in food value estimation, but this would not show definitely the actual amount of the water-soluble vitamine-amino-acids-enzyme contents which by constructive metabolism can be utilized to build up the proteid of cellular tissue.

Gunning's method of determining nitrogen by moist combustion consists of first decomposing the thoroughly dried yeast by digestion with an oxidizer (concentrated sulphuric acid and potassium sulphate.) The carbon and hydrogen are driven off in gaseous form as carbon dioxide and water respectively; the nitrogen is converted into an ammonium salt, from which free ammonia (NH_3) is later liberated by making it alkaline. The ammonia is then distilled into an acid solution of known value and calculated by titrating the excess of acid.

The Kjeldahl process of moist combustion which involves the use of mercury or mercuric oxide in oxidizing and of potassium sulphide in distilling, has been largely superseded by the simpler Gunning method, which is better adapted for general food work.

We can understand now, why the water-soluble-vitamines are calculated to render service in the treatment of the so-called deficiency diseases of undernourished children.

Yeast cells are able to take up almost any fixed nitrogen compound and to reconstruct the complex organic molecule of the amino-acid group to which the proteid of tissue belongs. Furthermore, unless yeast is provided with some form of nitrogen it will not grow, since it cannot take it up directly from the air as some bacteria are able to do under certain conditions.

In the actual cultivation of yeast for medicinal use, grain should not be used as a source of nitrogen, because this albumenous source is largely responsible for the repulsive odor and taste of yeast when secondary decomposition is allowed to take place. The distribution of the vitamine-amino-acid-enzyme contents of pure yeast is stabilized therefore by growing the cells in definite proportions of nitrogenous salts in conjuction with a carbohydrate (saccharine matter) and traces of phosphatic material, and by adjustment of these food requirements of the yeast plant, the odor, bad taste and nauseating properties of yeast can be almost entirely eliminated and great concentration obtained, so that the medical dose can be small and the food value greater than in commercial yeast.

So much has been written about the properties of yeast, that even abstracts would be burdensome reading, but from the present status of medical opinion, it appears to be decidedly serviceable in the internal and external treatment of infections in which the *staphylococcus pyogenes aurius* and other pus-forming organisms are factors. It may perhaps be difficult to explain the favorable influence of the vitamine-enzyme contents of yeast, but there appears to be abundant evidence that in constipation and cases of gastro-intestinal fermentation, it corrects these undesirable conditions and therefore has a wide field of usefulness. It has been claimed by some observers to be useful in nuritis and even in rheumatic arthritis. If such is the case, clinical reports will be welcome.

REFERENCES:

Broc: *La Presse Medicale*, January 28, 1899.
Audebert: *Rev. de Gynec. et de Chir. Abd.*, May-June, 1904.
Siredey: *La clinique*, November 13, 1908.
Abraham, O.: *Monatschrift fur Gynecologie*, Vol. XVI, No. 4.
Conzelmann, Fred J., Military Surgeon: *Therapeutic Medicine*, January, 1909.
Daniels, A. L., and Byfield, A. H.: *Am. Jour. Dis. Child.*, 1919, xviii, 346.
Eddy, W. H.: *Jour. Biol. Chem.*, 1920, xli, 44.
Funk, C., and Macallum, A. B.: *Jour. Biol. Chem.*, 1916; xxvii, 51; ibid., p. 63; Sullivan, M. X., and Voegtlin, C.: *Jour. Biol. Chem.*, 1916, xxiv, p. 14; Vedder, E. B., and Williams, R. R.
McCollum, E. V., and Simmonds, N.: *Jour. Biol. Chem.*, 1918, xxxiii, 55.
Daniels, A. L., and McClurg, N. I.: *Jour. Biol. Chem.*, 1919, xxxvii, 201.
DuBois, E. F.: *Arch. Int. Med.*, 1916, xvii, 888.
Lusk, G.; *The Science of Nutrition*, Philadelphia, 1917.
Osborne, T. B., and Mendel, L. B.: *Proc. Soc. Exper. Biol. Med.*, 1919, xvii, 46.
Osborne, T. B., and Mendel, L. B.: *Jour. Biol Chem.*, 1920, in press.
Surgiura, K., and Benedict, S. R.: *Jour. Biol. Chem.*, 1918, xxxvi, 171.
Osborne, T. B., and Mendel, L. B.: *Jour. Biol. Chem.*, 1920, xli, 451.
Steenbock, H., and Gross, E. G.: *Jour. Biol. Chem.*, 1919, xl, 501.
McCollum, E. V.: *J. A. M. A.*, 1917, lxviii, 1879.
Osborne, T. B., and Mendel, L. B.: *Jour. Biol. Chem.*, 1919, xxxix, 29.
McCollum, E. V., Simmonds, N., and Pitz, W.: *Jour. Biol. Chem.*, 1916, xxviii, 21.
Osborne, T. B., and Mendel, L. B.: *Jour. Biol. Chem.*, 1919, xxxvii, 557.
McCollum, E. V., Simmonds, N., and Parsons, H.: *Jour. Biol. Chem.*, 1919.
Osborne, T. B., and Mendel, L. B.: *Jour. Biol. Chem.*, 1920, xli, 275.
McCollum, E. V., and Davis, M.: *Jour. Biol. Chem.*, 1915, xxiii, 181.
McCollum, E. V., and Davis, M.: *Jour. Biol. Chem.*, 1915, xxiii, 247.
Osborne, T. B., and Mendel, L. B.: *Jour. Biol. Chem.*, 1918, xxxiv, 537.
McCollum, E. V.: *Amer. Jour. Physiol.*, 1909, xxv, 127.
Osborne, T. B.: The Water Soluble Vitamines, *N. Y. State J. of Med.*, July, 1920.
Osborne, T. B., and Mendel, L. B.: *Jour. Biol. Chem.*, 1917, xxxii, 309.
Osborne, T. B., and Mendel, L. B.: *Jour. Biol. Chem.*, 1919, xxxiv, 17.
Drummond, J. C.: *Biochem. Jour.*, 1918, xii, 25.
Drummond, J. C.: *Jour. Physiol.*, 1918, lii, 95.

16 Fifth Ave.

RECENT CHANGES IN THE TREATMENT OF CHRONIC HEART DISEASE.*

LOUIS FAUGERES BISHOP, A.M., M.D., Sc.D., F.A.C.P.,
PROFESSOR OF DISEASES OF THE HEART AND CIRCULATION, FORDHAM UNIVERSITY; PRESIDENT OF THE GOOD SAMARITAN DISPENSARY AND PHYSICIAN TO LINCOLN HOSPITAL,
New York.

The recent changes in the treatment of chronic heart disease are due to a better dissemination of a true knowledge of cardiology. Twenty years ago there had been no one devoting himself to cardiology in America except Flint, and you could count on the fingers of one hand the cardiologists of the world. In 1908 a trip to Europe, visiting the clinics in order to study particularly the treatment of those afflicted with cardiopathies, showed the present methods in use in some of the cure resorts.

One of the earliest impressions that I had was that every cardiologist, at a certain point in his development had discovered that exercise was the best remedy in heart disease, that is, in every case which he approached with the expectation of a cure. The second thing that he acquired in the course of time was the art of the continued use of digitalis. This matter is but poorly appreciated even at the present

*Read before the West Side Clinical Society of New York, April 14, 1921.

time, and I cheerish among my valued possessions a single article read in 1899 before a National Medical Congress by Prof. Groedel, of Nauheim, which taught me more about the use of this drug than everything else I had read.

Cardiology is a branch of medical philosophy and the students of the heart in every generation have been in a sense set apart from the workers in other departments. The greatest man of the day, McKenzie, stands alone in the profession, having by the vast weight of his intellect, compelled acceptance of many of his conclusions, but severely criticised and ostracized because of his incisive criticism of the misty thinking of his medical generation. The true cardiologist hopefully attacking the most fatal and terrifying disease is in sharp contrast with the lesser practitioner hiding behind the fatal prognosis and giving up the battle before it is fairly begun. The principal change in the treatment of chronic cardiac disease is a wider acceptance of what has been the practice of the best men in the past.

The hour is so late that I will close with a consideration of the most important obstacle connected with the treatment of chronic disease, in which a change should take place with respect to chronic cardiac disease. That is, that it is not treated at all in the early stages, because the profession and the public alike have been accustomed to, and are at the present moment, behaving like the proverbial ostrich, who in the face of danger sticks his head in the sand and says there is nothing the matter. It has been considered an ignominious thing to acknowledge that any pain in the chest except a severe attack of Angina Pectoris, which no one can mistake, is due to a disorder of the heart. It is the custom of the public and the profession to blame early cardiac pain upon digestive disorders and to ignore any discomfort that may come from the heart muscle until such time as the physical changes have advanced to a point where it is evident by the crudest physical examination, or until the pain becomes so great that it can no longer be ignored.

The change that I hope is taking place, and certainly should take place, is the recognition of heart disease at a stage when it is curable because it is amenable to treatment. Every human being will develop distress from the heart when a certain point in exertion has been reached—the trained athlete at the end of five miles, the soft muscled city dweller at the top of three flgihts of stairs. This is physiologic. When a person discovers that distress in the upper part of the chest supervenes after he has taken an amount of exercise that he previously could take without pain, that person is developing degeneration of the heart muscle, and is in the early stages of chronic heart disease. When the same thing happens on account of the extra strain on the circulation caused by digestion, the same is true. So many people come under observation with the story of cardiac pain neglected for months and years, because it was supposed to be due to indigestion, that it is well worth while to emphasize this simple matter.

The modern treatment of heart disease recognizes the adjustment of metabolism as the fundamental problem. It recognizes the close analogy between the health of the heart muscle and the health of the muscles of the whole body. Hence graduated exercises. Modern medicine recognizes te specific nature of cardiac irregularities and has pointed out their proper treatment. The latter I will briefly discuss after showing you some pictures of them.

109 East 61st St.

ESOPHAGEAL LESIONS AS REVEALED BY X-RAY WITH CASE REPORT.

Marc V. Abrams, M.D.,
Brooklyn, N. Y.

The varying degrees of radiolucency of the gastro-enteric tract make it necessary for the determination of pathologic conditions, that there be introduced into the canal a radio-paque media. The part of the tract to be examined determines the qualities of this media used. In the esophageal examination a paste of barium or bismuth and mucilage of acacia is used. For the stomach, a suspension of barium or bismuth in buttermilk is employed. The visualization of the large bowel requires a media composed of barium or bismuth, mucilage of acacia and water.

These pathological conditions of the gastro-intestinal tract are elicited from studies in contour. Such studies are directed firstly to the determination of the absolute contour and secondly to the rate and manner of the progress of the media ingested.

For purposes of X-ray study the tract is divided into sections:

1. Esophagus. 2. Stomach and Duodenum. 3. Jejenum and Ileum. 4. Caecel region. 5. Large Bowel. 6. Sigmoid and Rectum.

Esophageal examinations are made both by the fluro-scopic screen and the X-ray plate. First the screen examination is made of the chest to rule out the presence of an aneurysm or of pleural, pulmonary or mediastinal inflammation, tumors, substernal thyroid, vertebral disease or deformity or cardiac enlargement. For the visualization of the esophagus, the patient stands vertically and obliquely with both arms resting on the head (fencer's position); the exact angle is determined beforehand by fluoroscopic examination. The patient is rotated until the greatest space is obtained between the shadow of the vertebral column and that of the heart and aorta. The barium or bismuth meal or paste is now given. This consists of one tablespoonful of barium sulphate or bismuth subcarbonate, combinded with one teaspoonful of mucilage of acacia. By continuous and vigorous mixing the paste becomes viscid.

As the paste descends the esophagus, it costs the walls along its path. Each mouthful is thus followed along the entire course of the esophagus.

Other methods are also in vogue. Bassler used a tube with distensible rubber bulb at the end. This he introduced into the stomach and filled the tube and bulb with water. He then pulled the tube up so that the distended bulb blocked the cardiac orifice. After thus sealing the esophagus he introduced a barium suspension through the mouth.

Crump used a sealed sausage skin, which the patient swallowed. It was then distended with an opaque suspension.

To discern the type of pathology present in the examination of the esophagus, one should be familiar with the anatomical normality of that organ. It is about 25 centimeters in length and has an irregular caliber and presents five definite and constant constrictions: (1) the itroitus, (2) the aortic arch, (3) the crossing of the left bronchus, (4) the esophageal hiatus and (5) the cardiac opening.

Carman divides the swallowing act as observed by the roentgenographic study into two phases, pharyngeal and esophageal. In the first phase, the food mass accumulates before the esophageal introitus where it exerts pressure until the sphincter relaxes. In the second place, the food courses down the esophagus, arriving at the cardiac sphincter where it is momentarily halted before entering the stomach. The times required for the

Showing diverticulation and canalization of the esophagus.

passage varies greatly with the consistency of the suspension.

The morphology of the esophagus can be altered both by intrinsic and extrinsic causes. In addition to the morphological changes, one must observe the character and rate of the food passage, particularly with reference to the possibility of an arrested progress at any point.

Esophageal Spasm.—Spasmotic stricture of the esophagus is seen in chorea, epilepsy and nervous states. The passage offers little difficulty in the recognition of this stricture. The administration of 10 drop doses of Tr. Belladona will often relax the spasm.

Cardio Spasm.—When the spastic constriction is localized at the entrance of the esophagus into the stomach, the condition is known as cardiospasm. It is typified by either a blunt or regularly conical obstruction at or near the stomach, accompanied by a dilatation of the esophagus. It is unfortunate that constriction resulting from traumatic origin sometimes gives a regular and smooth tapering of the opaque. It is thus not always possible from the *x*-ray pathology alone, to definitely ascertain whether the stricture is a spastic one, in contradistinction to the anatomical strictures following trauma or new-growth. Relaxation of the spasm is sometimes followed by the administration of 10 to 15 drops of 1/1000 solution of adrenalin mixed with the paste.

Diverticulum.—Such a condition is recognizable when the barium or bismuth suspension flows along the esophagus and some of it enters a pouch and remains there, while the rest of the bolus passes into the stomach.

Stricture of the Esophagus.—The causes may be classified as follows:

1. Congenital stenosis: (a) complete, (b) aerofistulous.

2. Cicatricial: (a) irritant poisons, (b) specific infection, (c) healed ulcers.

3. Tumefaction: (a) Intrinsic (cancer or other tumor), (b) extrinsic (aneurysm or other enlargements).

Congenital stenosis is readily recognizable because it assumes complete occlusion or because the meal is seen passing into the bronchial tract.

Cicatricial stenosis may result from irritant poisons. The extent and irregularity of the lesion characterizes the amount of citatrization of an irritant poison.

Stenosis of the esophagus may also come from tumefaction by reason of the growth of tumors (usually cancerous) in the wall. External pressure causes only displacement of the gullet.

Case:—The following case presents some of the typical features of lesions in the esophagus.

Patient:—N. H., female, aged 45 years, white, housewife.

Family history:—Negative.

Past history:—Negative childhood; has four normally developed children.

About eleven years ago she accidentally swallowed some irritating poison which burnt mouth and throat. Was ill for about six weeks; could not swallow well until swelling subsided. The condition was soon cleared up. About one year later began to complain of difficulty in swallowing solids and later, liquids. She did not vomit. Was treated for esophageal stricture. Dilatation with boujies gave temporary relief. Condition was not wholly cured and operation was advised. Was operated on and a large stricture was found a little below the introitus. Had an uneventful recovery, and felt well until about a year ago she began to feel a sense of obstruction when swallowing. Liquids were swallowed without difficulty, but solids seemed to be obstructed. Later on, she had regurgitation of particles of undigested food that was eaten many days before. An attempt to pass a stomach tube was unsuccessful as the latter descended only about six inches from the mouth. A fluroscopic examination during the swallowing of a barium capsule showed it to be obstructed a little below the introitus. A bolus of barium paste was then given. An inverted mushroom-shaped sac soon absorbed most of the meal. Much retroperistalsis was visible from this point of obstruction. At least 15 minutes elapsed before some of the paste could be seen passing downward. About five inches below this area another point of obstruction was encountered. A canalized narrowing for about two inches was seen. The enclosed roentgenogram illustrates the condition present.

The conclusion arrived at was that there was coincidentally a double lesion present in this esophagus; a pouch above and canalized stricture below.

THE DESTINY OF THE TERM RHEUMATISM.

W. F. McNutt, Sr., M.D.,
Byron Hot Springs, Cal.

The term *rheumatism* has played a great rôle in the history of medicine. It has come down to us through the ages. The term has great vitality. While the term has been sheared of much of the significance that was attached to it by the ancients, it has not been robbed of its indefiniteness. As for the destiny of the word rheumatism we cannot prophesy. We have eliminated gout, ostero-arthritis, Charcot's joints, and the infective joints diseases, such as tubercular, syphilis, gonorrhea, pneumonia, La grippe, typhoid, scarlatina, etc.—the sequence of these respective diseases—no longer considered rheumatic. What further elimination, etiology, pathology, bacteriology, will make, we may only wait and see.

Will we be allowed the convenient term rheumatic diathesis, as applied to chorea, erythemia, nodosa, atheroma, etc., or will we have to say of these diseases or conditions, they are the inherited or acquired manifestations of a morbid constitution. Will the terms acute inflammatory rheumatism, chronic articular rheumatism, etc., give way to Fibrositis. Are we sure that articular fibrositis (inflammation of the white fibrous tissues) involves the whole pathology of articular rheumatism, or is myo-fibrositis the whole pathology of muscular rheumatism. Is fibrositis a synonym for rheumatism?

We are inclined to assume a smile when we think of the old Greek physicians, with their humoral theory attributing rheumatism and many other diseases to the brain, supposing the brain to be a gland. The smile might be changed to a blush, when we think of how many so-called physicians are to-day attributing as many diseases to the spine as the ancients did to the brain. Alas for 1921 superior knowledge of the functions of the brain and spine. Shakespeare might well have said of medicine what he said of religion, viz.,"In religion what damned error, but some sober brow will bless it and prove it with a text."

The writer has had charge of the medical department of Byron Hot Springs for over three years. The visitors to the springs average about 250 per month, not including children with their mothers. Many come here for rest or pleasure and have no illness. Of those who complain, about one-half have rheumatism, gout, sciatica or neuritis. They are mostly from west of the Rocky Mountains from Canada to Mexico, very few under 25 years of age, the oldest 84.

For the physician to take the patient's diagnosis and register them accordingly, would be easy, but not accurate. To differentiate and attempt to satisfy oneself of the etiology and pathology of each case is extremely interesting and not always possible. One soon realizes the hold the term rheumatism has upon the profession, and its convenience to the lazy or careless. The term rheumatism is prefixed to nearly every organ of the body. One came here with rheumatic shingles, one with rheumatic pleurisy, etc. If physicians would take more interest and more time to differentiate, the swollen joints and confine the term rheumatism to such cases as were not the sequence of diseases having no relation or connection to rheumatism, much would be accomplished to eliminate the term.

In some cases the most intelligent, experienced and painstaking physician in attempting to differentiate will be obliged to fall back on the term rheumatism. No doubt it is to the confused cases that the term rheumatism owes its longevity. Much has been done in curtailing the disease rheumatism and there is yet much to be accomplished. Until it is definitely decided what is rheumatism, the term will have to be retained as a matter of convenience for physicians to fall back on.

Many cases come or are sent to the springs as rheumatism, which are clearly traumatic synovitis. There would seem no excuse in using the term in these cases, other than tradition. We can say the same of many cases of flat foot, or relaxation of the sacro-iliac joint from strain. However, these cases bear no more relation to rheumatism than do many painful and swollen joints, which are a sequence of some one of the acute infectious diseases. We have made very little progress in determining the etiology and pathology of the term rheumatism. There are more than one theory. Perhaps the nearest we can come to it, is to say that rheumatism is due to some unknown poison in the blood, generated in the digestive tract. Is the term rheumatism to be retained until it is established as a distinct and especial disease?

RATIONAL NOSE AND THROAT TREATMENT.

HAROLD HAYS, M.D., F.A.C.S.,
New York.

It is a common fallacy that the majority of nose and throat specialists never examine these parts without having the idea in mind that something pathological will be found that will necessitate operation. I am of the contrary opinion and feel that conservatism is playing a very important part in this specialty to-day. It is seldom that a patient comes to the office for examination, that some variation from the normal cannot be found, for no nose or throat is perfect, but whether or not operation is necessary, depends upon the proper judgment as to the seriousness of the symptoms taken in conjunction with the objective findings present.

In a variable climate, like that in New York City, inflammatory conditions of the mucosa of the nose and throat are very frequent, and I cannot insist too strongly that many of the symptoms will respond to simple remedial measures, so that they will disappear temporarily, at least, within a few days. Unless a patient is suffering actual pain or has become devitalized, because of a chronic nose and throat process, it is far better to temporize with simple remedies, than to suggest operation, unless the abnormality is sufficiently great to warrant one in guaranteeing an absolute cure.

Cleanliness of the nose and throat is of the greatest importance. Washing the nose out with a mild alkaline solution so that the musoca is free from all tenacious mucous will frequently satisfy the patient. But one must remember that too thorough cleansing of the nose and throat leaves the mucosa entirely exposed to external irritation, and so it should be definitely understood that after cleansing with an alkaline solution, some oil spray must be used to cover the unprotected parts.

I do not believe that the application of strong medicines to the nose does very much good, and, in fact, are often harmful. If something stimulating, and at the same time more or less anti-bacterial must be used, an excellent procedure is to soak two very thin pieces of cotton in 25% argyrol, place them in each nasal cavity, and allow them to remain there for five to ten minutes. Shrinking the mucous membrane of the nose with a mild solution of adrenalin and cocain (½%) before cleansing or making applications, is of decided benefit, not only because the medicine will reach parts better, but because a more thorough inspection of the nose can be made.

In treating the throat, however, particularly the nasopharynx, topical applications are of the greatest value. Here, again, I do not believe in strong medicaments, a 1% solution of silver nitrate, a 20% solution of argyrol, or 1% solution of iodin and glycerin are very beneficial. But no application should be made until the pharynx and nasopharynx are thoroughly cleansed by some mild alkaline solution.

One warning is necessary. The nasal sinuses constantly harbor pathological organisms which keep up a constant irritation or inflammation in the nose and throat, and one should be absolutely sure to eliminate any hidden processes in these sinuses before determining that the treatment as above outlined, will have any beneficial effect.

2178 Broadway.

American Medical Editors' Association.

The fifty-second annual meeting of the American Medical Editors' Association will be held at the Hotel Lenox, Boston, Mass., Monday and Tuesday, June 6th and 7th, and the annual banquet will take place on Tuesday evening, June 7th, at seven o'clock sharp.

The Business Session will open Monday morning at 10 o'clock, and will include minutes of preceding meeting, report of officers, report of executive committee and committee reports.

On Monday afternoon will be a symposium on "What Should Be the Attitude of the Profession Toward Health Centers?" discussed by Dr. E. H. Marsh, New York; Dr. Kenmon Dunham, Cincinnati, O.; Dr. Frederick L. Hoffman, Newark, N. J.; Dr. Harold Hays, New York; Dr. G. W. Kosmak, New York; Dr. Alexander Lambert, New York; Dr. F. C. Warnshuis, Grand Rapids, Mich., and Dr. W. A. Jones, Minneapolis, Minn.

Tuesday morning the symposium will be "The Correlation Between Editorial, Advertising and Subscription Work," and the speakers will be: Dr. H. E. Lewis, New York; Mrs. M. H. Rockhill, Cincinnati, O.; Mr. C. C. Taylor, Philadelphia, Pa.; Dr. O. F. Ball, Chicago, Ill.; Mr. E. S. Taylor, Philadelphia, Pa.; Mr. S. DeWitt Clough, Chicago, Ill., and Dr. W. A. Young, Toronto, Can.

Tuesday afternoon "Group Practice and the Diagnostic Clinic" will be the topic and Dr. J. E. Legge, Cumberland, Md.; Dr. Anthony Bassler, New York; Dr. George F. Butler, Winnetka, Ill.; Dr. Wm. Benham Snow, New York; Dr. Walter M. Brickner, New York; Dr. Seale Harris, Birmingham, Ala., and Dr. G. M. Piersol, Philadelphia, Pa., will speak. Physicians interested in medical journalism are cordially invited to attend.

The Man Young at Fifty

SLEEP AND ITS REGULATION.

Renewal of Energies Through Slumber the Paramount Re-Establisher of Man and Especially of the Mature Adult.

J. MADISON TAYLOR, A.B. M.D.
PROFESSOR OF PHYSICAL THERAPEUTICS AND DIETETICS, MEDICAL DEPARTMENT, TEMPLE UNIVERSITY,

Sleep is the most prompt and complete restorative of energy, the chief agency for freeing the body from poisons, either self-formed or outside formed, also it is the prime detoxicating agency. As an organic need sleep ranks in importance with food, water and air.

Fatigue in man is a complex phenomenon compounded of over use in the mental, moral and physical domain and unless relieved, serious deteriorations follow in all cells. Human beings vary in their need for absolute rest, deep slumber, yet they demand it ven more than do animals. Some animals do not sleep; their consciousness is never fully suspended. Their fountains of force, however, become renewed, distributed and released from over-tension and fatigue poisons by means of the "primitive rest-state", to be observed in such beings as rabbits, horses and many small animals whose reason for existence is to furnish prey for larger creatures. This resting phase —pimitive rest state—is a form of suspension in cellular activities. Those who give normally, who throughout all ordinary exigencies maintain a normal attitude toward the life of effort, may expect to enjoy a full measure of this restorative function.

Sleep is demonstrated by Boris Sidis and Edward Claparedi to be a positive organic instinct, like hunger and thrist, or the reproduction impulse. It precedes, does not follow fatigue of exhaustion. We sleep in order that we may not become fatally autointoxicated, nor completely exhausted.

Sleep is believed by many to be an organic need even more imperative than for food. Animals and men can endure starvation for a long time and recover readily; but they die if deprived of sleep. (Henry J. Berkeley and others.) This is denied by Frederick Peterson, who declares the fear of not sleeping is the chief agency for harm. He cites notable instances of great thinkers who needed little sleep, viz., Humbold, three hours; Edison, four; John Hunter, three; he might have mentioned Napoleon, four, and many others. Obviously it is the kind and quality of rest obtained which suffices.

While at the zenith of maturity, during possession of full powers of mind and body, a man may do with less leep; some can get along with astonishingly little. Brief periods of complete mental and physical rest constitute the equivalents of sleep. "Forty winks", a short nap, "a siesta", will often restore one to full working powers and lessen the later need for protracted slumber. The whole world appears to one different and better, life becomes brighter after a brief nap. Problems before insoluble seem magically cleared. Worries and fears sink into insignificance, often solutions to obstinate problems are thus opened up. Weir Mitchell says, in Hugh Wynne: "Ben Franklin claimed that in sleep the mind creates thoughts for the day to hatch. Rather sleep so feeds and rests the brain that when first we waken our powers are at their best."

It is well to get all the sleep for which one feels the need. Few are sluggards, and if so, some physical abnormality is to be suspected which should be determined and corrected (e. g., in the lethargy of hypothyroidism). Mild digestive disturbances often cause insomnia, in others somnolence. Wakefulness while lying down and somnolence while erect, is characteristic of certain heart weaknesses.

The restorative power of sleep is mainly in proportion to the completeness of examination. Suppression of muscular exertion, enforced passivity, diminishes greatly the wear and tear on tissues and centers. Some subtle, unexplained power for restoration resides in calm continued sleep. The actively conscious life needs must slip back periodically into the lower sub-consciousness; hence the deeper the sleep, the greater the restoration. Sleep, or the resting phase, being a poise in consciousness, may be more marked either in the physical or in the psychical domain. Sometimes our body seems asleep while our brain is awake. At other times the mind seems asleep while our bodies remain ready to act. Here the element of anxiety as to some disturbing factor must be reckoned with in adopting measures to re-establish poise.

"Boris Sidis' contribution to the explanatory complex of sleep" (says an editorial writer in THE MEDICAL TIMES, Dec., 1909), "though not entirely original with him, rests upon convincing facts cited; and his argument is most ingenious. He considers sleep from the viewpoint of the reaction of the nervous system to stimuli; and it is obvious from his many experiments detailed upon frogs, guinea pigs, kittens, puppies, and babies, that he has studied the subject deeply and extensively." He finds that if a stimulus continues playing upon us at the same strength, the system presently ceases to react to it—that is, we ceases to feel the sensation. To keep up the same level of a sensation, therefore, the stimulus must continue to rise; and if it is, on the contrary, monotonous and unvarying, it will drop out of consciousness—the system will be asleep so far as it is concerned. "Stimuli which have exhausted themselves by their monotony drop out and are replaced by new ones until the whole round of stimulations is gone through with and the organism, ceasing to respond to its external environment, falls asleep." This well describes sleep as it occasionaly impels when one is "dog tired", and from sheer exhaustion becomes unconscious against one's wish or resolve.

In ordinary instances, however, sleep is partly an artificial and partly a voluntary product. "The whole round of stimuli" have not exhausted themselves; some fatigue as a rule persists, but not enough to convert a local lathargy into a general sleep. For complete slumber we must actively supplement the effects of partial exhaustion by excluding other possibilities of sensation as far as we can. Hence "the chamber blind to light and deaf to sound"; and then the lying down. The largest part of waking consciousness is made up of "motor" sensations coming from muscles, joints, and the like. When lying down we get fewer motor sensations than when standing up, because the muscles, joints and other structures then become relaxed. The important thing about the significance of attitude is its effect (in this view), not on circulation, but on muscular tension, arrested energy, and its variations. Sidis finds that 75% of right handed people compose themselves for sleep lying on their right sides; and of left handed people on the left side. This is done to limit the more active side where there is the greater possibility of motor sensations; so that

they lie on this or that side for a reason precisely analogous to that for which they close their eyes and pull down the blinds.

How much sleep each one needs is not to be determined by dogmatic rules or precedents, nor does each one require the same amount under every condition or circumstance. There must be enough, daily and weekly, and of suitable character, to restore the balance of neutral energy howsoever reduced one may be by fatigue following upon daily activities; otherwise the sensorium resents this deprivation in one way or another.

Sleep, being the completest form of rest, is needed most by the youngest and least by the oldest. Most sleep is required by the weakest and least by the strongest. During childhood developmental, and exhaustive states, too much sleep is often distinctly hurtful. Many modifications will suggest themselves to those who are wise or learned in the science of bodily growth, development and disorders. Personal experience always counts for much. Variants, sometimes wide, are often permissible.

Physical efficiency depends chiefly upon the kind, quality and amount of effort expended. Rest is an inevitable corollary. Relaxation is the starting point of all effort. Not only the strongest blows, the most accurate thrusts, can proceed from an arm in thorough equipoise, but also the greatest nicety in art demands it. Equipoise presupposes a full quantum and distribution of energy. Animal energy depends upon adequate rest as much as on force-giving foods. Complex acts, conditional always upon harmonies between intact central nervous dynamos and well adjusted mechanisms, can only be performed in their completeness when energies are in poise.

Sleep is an absolute necessity for conscious beings. There are those who oppose this view, and some require relatively little, and that, too, for long periods. Some sleep lightly, retaining in greater part their consciousness. Occasionally we hear of an individual who has lived for a long time without sleep, so far as can be determined, and yet has continued to maintain good health. Sufferers from one form or another of nervous exhaustion are often compelled to forego sleep temporarily. Vigorous individuals of pronounced personality and highly developed consciousness have the least need for sleep, at least while at the zenith of their powers and in full flower of energizing.

The maintenance of conscious life demands an expenditure of energy so intense that the processes of nutrition and reconstruction of cellular waste can not be carried on without sleep. Complete repose of the consciousness is demanded for the plastic nutrition of the young organism and the accomplishment of vegetative life. Consciousness is the highest of our faculties, rendering possible moral and scientific ideation; it demands the greatest efforts of our organism. In its absence sleep is less required.

All the internal organs are, during sleep, relatively less filled with blood because then the skin is in a state of hyperemia or gorged with blood. The sweat glands act more energetically at night whether we are asleep or awake, hence the danger of chills is then greater. All the organic activities continue but are less vigorous at night and during sleep, whereas during sleep in daylight hours these proceed with little alteration. When animals or men feel the desire to sleep they instinctively seek a quiet sheltered spot, as free as possible from light and noise, thus avoiding whatever impressions from the external world are liable to be subjectively translated into sensations. The eyelids are lowered; a position is sought wherein the muscles can be fully relaxed. The sensorial organs are capable of acting during sleep and continue to transmit impressions into conscious sensations.

With the pallor of the brain, which occurs in sleeping animals, the cortex ceases to react so readily to mechanical, photic, electric or other stimuli. The spinal cord and sensory nerves do not sleep, yet sensations of pain are then lowered. The nerves transmit painful impressions, but the consciousness of the sleeper perceives them incompletely. The voluntary muscles become quiescent during sleep, but retain their power as shown by the normal subject in changing in position, in rearranging the bed clothes, even in rising and walking. Soldiers and other routinists are able to march or ride while asleep. The brain is the chief part which sleeps, but it is not wholly inactive, exciting inhibitons which check the formation of reflex movements. If stimuli are applied of sufficient intensity to overcome the protective states of the somnolent consciousness the subject awakes, recognizing the cause more or less certainly.

Sleep is not an absolute arrest of cerebral activity; the brain then always retains partial energy. In deprivation of sleep it is the brain which suffers most, while in deprivation of food it is the brain which preserves longest the integrity of its structure and function. In young animals, abundantly fed and cared for but kept awake, there follows serious lesions of the organism which soon becomes irrepatable, and death results.

After having endeavored to attain a fair idea of what sleep is, we may proceed to discuss its regulation. For the young, who may be assumed to be in possesion of full neural and circulatory balance, whether in or out of health, the regulation of sleep is a simple matter, one which will in most instances adjust itself automatically if the subject be placed under normal conditions.

We are devoting our attention now chiefly upon the status of sleep in those of middle or late life. Here a number of causes conspire to disturb equilibrium of body cells. In some this is slight, in others it will be found that effects have been insidiously wrought which may suddenly obtrude upon attention causing great distress, often impairing the integrity of judgment, hence working efficiency. Therefore a double peril assails. Mere inability to sleep, naturally, or as heretofore, or as each one assumes as a right, is, especially among men (who shrink from the admission of physical weakness), seldom regarded as worth seeking the advice of a physician. Whereupon the simplest remedy is to hunt about for something which will obtund the consciousness. Often this is a form of alcohol. A friend will advise a glass of whiskey at bedtime, may be two or more; beer is popular for this purpose; some special form of wine is often recommended, and (deplorable as it may seem) too often by the physician.

The entering wedge is so easy, and in the main agreeable in its primary effects, that the habit of tippling is thus readily established. Or again the chemists' shops are filled with "simple harmless remedies for insomnia." The sign boards in all public places glisten with advice. Every acquaintance is ready with counsel, especially well intentioned women with little else to do but to prattle shallow opinions on matters within the narrow range of their experience, medical, spiritual or social. It is never

safe to play with drugs, or agencies whose ultimate effects are often hurtful to a profound degree. Idiosyncracies exist, too, whereby what may harm one not at all may produce in another far-reaching derangements. One of the most dangerous lunatics I ever saw was a man possessed by sudden homicidal tendencies. He would have remained so had not it been discovered, by providential accident, that he used habitually moderately large doses of some bromide. The obsessions promptly and permanently disappeared by total withdrawal and the use of an antidote.

The action of narcotics presents none of the characteristics of normal sleep except the temporary arrest of consciousness; hence narcosis is not true sleep. They do not refresh and regenerate vigor as does normal sleep. To be sure, drug unconsciousness may and often does pass into sleep. Again there are those who have become so accustomed to narcotics that, when deprived of them, they can not sleep. This would seem to prove a sort of antagonism between the drug effect and natural sleep. In brief, whatever agents inhibit cerebral activity, inducing local anemia, hence permitting sleep or narcosis, are temporarily harmless provided they do not derange nutrition or cause other ill effects. All narcotic drugs, however, invite these evil effects in varying degrees, hence should be avoided, and only used in extreme cases and under guidance of a competent physician.

Another peril lies in the fact that derangements of sleep often foreshadow serious structural damage of the heart, arteries or other organs or tissues, especially is this true of the ductless or blood glands, the essential regulators of life which by some drugs are over-stimulated and suffer inevitable exhaustion through extreme reaction. Hence unless the phenomena be estimated intelligently, in the light of other than obvious data only to be secured through careful medical examination, a deadly disease process may escape detection until too late to accomplish full repair.

Conditions Which Influence, Favor or Retard, Sleep.

In full health little thought is expended on how one goes to sleep, yet it is worth while to form a few ideas on the conditions under which one can best slip into the land of dreams, and remain there tranquilly.

The natural and economic time for slumber is the night which fulfills the essential conditions, including darkness, quiet, healthy weariness, release from urgencies, responsibilities and distractions. The night time is one's own. In cool weather ample warmth of covers is needed, and equally abundant fresh cool air. To be sure some can sleep well in close chambers, even in stuffy ones, yet it is abundantly proven that far better sleep is had in cool airy rooms and the best in moderately cold ones. After a personal experience in sleeping out of doors few can again endure room closeness. Certainly all evidence shows that the completest renewals of energy and healthfulness is supplied by sleeping in the out of doors. Especially is this true for invalids, convalescents, and sufferers from deteriorative diseases.

The attitude in sleep which all animals assume is lying upon the abdomen "ventral decubitus"—never on the back or "dorsal" decubitus". Note infants and young children. Elders may object that their faces might become buried in the pillow, "they may suffocate". Not at all. Rest the face on the pillow's edge and push in the part which projects beyond the nose which will then hang over and give ample air vent.

Any one can—by using ingenuity—campass the change in "decubitus" and will forever thereafter prefer the ventral position. In very cold air the head may need a cover, especially the ears. This is easily supplied by a handkerchief or cap. Those who worry about the morning light—a great source of disturbance to some—can place over the eyes some dark, soft fabric, a bit of black silk pulled across the eyes and this, when tucked under the head, will serve all purposes.

The best position of the bed is with the head toward the light and the feet away. A high headboard is best, capable of excluding both light and excessive air in motion. The conventional position of the bed is facing the window. This is absurd, uncomfortable, indefensible to thus confront the dawn if further sleep is desired.

For those who sleep lightly, or not readily, who dread sleeplessness, some preparation for sleep should be made. Among the most effective is to take a short walk, or any light monotonous exercise, a bicycle ride is (or was) admirable; or to stand before an open window and inhale deeply a score of times; or a sponge bath, or a brisk, dry, rub-down.

If the feet are cold sleep will flee or be shallow; be sure to warm them. If no artificial heat be available scuffle the bare feet about on a carpet or floor, or use some friction.

Conditions Favorable To Sleep.

To secure regular consecutive sleep it is best to assume a position which is most natural and best suited to invite the least disturbance of the functions of the special senses and the noble organs. We may use for analogy the four-footed animals, since by comparing such facts we can secure the safest guidance. The position all animals take is on the abdomen or nearly so. Habits may, and do, vitiate our instincts here as elsewhere, and we can accustom ourselves to many departures from natural and advisable operations. This is especially forceful while in vigorous health, but we are speaking here of securing the best rest with the least tax upon our organism. The body should lie as nearly as possible on a level, head and feet as well as body, on the abdomen, adjusting face, arms and legs in such a fashion as shall not permit undue pressure upon nerves and blood vessels, direct or indirect. The face should be supported on a pillow, the nose projecting over the edge, to permit easy respiration. The disposition of the arms requires some care, but this is easily achieved.

To lie on the back is objectionable for the reason that long continued pressure on the tissues adjacent to the vertebral column, which are innervated by the posterior primary divisions of the spinal nerves, exerts a continued irritation through vasomotor connections to the viscera, disturbing the circulation in the segments. Here lie the cell bodies and the vasomotor nerves, which thence pass to the organs and beyond parts, thereby governing function. Thus, dilatation is induced and maintained in the blood vessels of the viscera. Also certain results follow directly by effect of gravity, Pressure through gravity on the abdominal organs, and their varying contents, is exerted upon the great vessels, arterial, venous and lymphatic, the sympathetic plexuses, and the ebb and flow of fluid in them becomes deranged Hence function and nutrition of these structures are influenced unfavorably. Man is the only animal which sleeps on the back. This attitude should only be assumed for short periods. During extreme

weakness this position (dorsal decubitus) is often taken, but it is the duty of attendants to urge a frequent change to the side, otherwise several hurtful effects may follow, among which the least grave are nightmare and evil dreams. The poisons of katabolism circulating in the blood tend to be deposited in the outlying tissues; hence arise pneumonia and bedsores. Not only is this true for those who are suffering from one or another form of disability, but for those in robust health, especially when sleeping on the back after full meals. Many obscure forms of digestive or circulatory disorders may have been initiated in infancy through lying too long upon the back. (See excellent article in *Scientific Monthly*, May, 1920, by Prof. B. F. Kunkel, entitled: "The Disadvantages of Being Human.")

In animals, among whom such disorders are rare and whose spinal column is constantly horizontal, there is little or no change in the relative positions of the great organs at any time. In man, who is constantly altering the relationships of these viscera by lying, standing, stooping, the blood supply and venous return are subject to frequent interruptions, strains being exerted upon the supporting structures of the blood vessels and thus heavily taxing the vasomotor mechanism. The head should be permitted to rest as nearly upon a level as the buttocks or feet, though most people prefer some support. The blood should be encouraged to reach all parts of the body equally, hence the limbs had best be extended, not flexed; the habit of extending the arms above the head is a particularly bad one.

To secure the most perfect repose the temperature of all parts should be equalized before retiring. Cold feet induce delay in securing sleep and it is then shallow when attained. The bladder and bowels by weight of their contents will interfere with repose, hence they should be previously emptied. It is most unwise to overfill the stomach before retiring; this disturbs sleep almost as much as hunger, but moderate eating before sleeping is not hurtful, but is often salutory.

(To be concluded.)

A Doctor's Story

DOCTOR AND PATIENCE.

HAROLD M. HAYS,
New York.

(Continued from May issue.)

CHAPTER XIV.

Evelyn and I returned from our honeymoon trip to a brightly lighted and cozy-looking home. Mother and father Bertram and Bill Franklyn, accompanied by Beatrice Morgan, had come over earlier in the day and with the help of Mary had cleaned and dusted and filled anything that would hold water, with flowers. Beatrice had made one of those "welcome home" signs with elderberies and ferns and hung it between the front windows.

I could tell that Franklyn and Beatrice were getting along famously. And when Bill got me alone for a moment he whispered: "Getting along fine, old man. She's going to take me. I've sworn off liquor and gambling unto eternity."

Well, all of us behaved like a lot of kids. None of my patients would have believed I was the serious-minded Dr. Snaith that evening.

When they got settled well to talking, I stole a moment to go into my office to look over my mail. The first letter I opened was from the editor of the New York *Medical Journal*, who accepted with thanks my paper on "Tuberculous Glands of the Neck" for exclusive publication, and ended by saying that it would appear shortly. I felt proud as a peacock. It seemed a fit contribution to a happy day. The rest of the mail was a lot of advertisements, a few unpaid bills and last of all a scrawled, lead-pencilled letter which I picked up curiously. Its contents sent by heart bounding:

Dr. John Snaith,

Dear Sir:

You aint done wit me yet. I am going to get you. You'll remember me—some day.

The letter was unsigned.

"Some old crank," I said to myself. "I'll send this down to Police Headquarters and forget it." But somehow the vision of the dope fiend with whom I had had the fight in my office came before me.

I showed all of them the letters from the *Journal* accepting my article. Mother and father, after reading it, looked at me proudly. Evelyn just said, "I said so," and kissed me. Bill said he hoped to follow my example.

"Now perhaps," said Evelyn, "you'll work on that invention."

"I'm going to, darling, as soon as you give me a breathing chance."

At last they decided to depart and leave us newlyweds to ourselves. We had enjoyed being welcomed so nicely but people ought to know that a young couple, after a three days' honeymoon, are anxious to snoop around their home by themselves a bit. Evelyn and I had any number of things to do, such as looking at our wedding presents, inspecting the kitchen (from which, of course, all my laboratory stuff had been removed), putting pictures up against the wall to see if they would fit and so on.

As father Bertram was going out of the door he said:

"John, I'm going to send a bright young fellow up to see you in a day or so. He's in the insurance business. You'll be pestered to death with insurance agents so I want you to meet a man who knows his business and can put you right. Of course, you are going to take out insurance?"

"I hadn't thought much about it, Dad," I said sheepishly. "But if he comes on your recommendation, I'll be glad to see him."

A few days later Martin Alvord came in to see me. The ice was broken right away when I saw his fraternity pin. We found we had a good many friends in common.

"I don't want you to feel, Doctor," he said in a hearty earnest way, "that I am going to waste your time. Being in the insurance business, means that I have got to sell insurance. But there are all kinds of insurance for all kinds of people, and I always try to show prospective clients what kind of insurance is best for them personally. If I take up too much of your time, tell me and I'll quit. You know we fellows have a great gift of gab."

"I'm not very busy this morning," I said. "Fire ahead. If there's one thing I don't know anything about, it's insurance. I didn't think I could quite afford to take any out at present."

"You're like a lot of doctors, Dr. Snaith," he put in. "Dealing with death as they do all the time, I can't quite see why they are not more careful to protect themselves. Even doctors who make a good living while they are alive and well, leave their families almost destitute when they die. It's hard to understand why they are not more careful.

"I suppose it's becaues their income is rather unstable," I said. "They don't want to bind themselves to certain stated payments for a lifetime."

"That's all rot, if you'll pardon my saying so, Doctor. If you'll listen to what I have to say, you'll agree with me that insurance is the best way a doctor can save money—and doctors more than any other class of people have to be taught to save. Let me put it to you another way.

"Here's a doctor I know who had an income from his practice of fifteen thousand dollars a year. He developed tuberculosis. He didn't have any health insurance. He lingered two years during which time he and his family, a wife and two children, were dependent on the liberality of relatives. He died leaving twenty thousand dollars insurance to his widow and no other tangible property of any kind. In other words, his wife was left to support two children on a paltry twelve hundred dollars a year unless she wanted to eat into her principal. Not very much was it? Yet that twenty thousand dollars for which the doctor paid the company less than five thousand dollars in premiums saved her from being a pauper. A doctor has only done half his duty toward his family when he has supported them comfortably during life. He should be made to support them comfortably after death."

"But a man in my position, Mr. Alvord, can't afford to take out big insurance," I said. "My income doesn't warrant it."

"I know that," he answered quickly. "No one should take out more insurance than he can afford to. But often one can afford more than he thinks. If I thought you were going to die tomorrow, or a year from now or ten years from now, you'd be a poor risk. The insurance company banks on your living a long life. They'd go bankrupt if everybody they insured died young. But you could start with a small policy and add others to it from year to year as your income grew larger."

"Well, put me wise, old man," I replied, laughingly. "I'm as ignorant about such matters as a goat who first sees grass and isn't educated enough to eat it."

"There are all kinds of life insurance policies, Doctor," he went on. "There's a straight life policy, twenty payment life, endowment and term insurance. Everyone of these is worth while. One is better suited to one man, another to another. You know Doctor Armstrong, don't you?"

"Very well indeed."

"Now I'll tell you what he did when he was a young man, and I think it would be a good plan for you to follow. I was too new at the game to get his insurance then but I've been his broker for the past five years. Armstrong decided to take out as much insurance as he could when he was a young man. He was willing to bank on his future. He argued that if his income was three thousand dollars a year then, there was every reason to suppose that in ten years he would be making ten times that sum. Of course, Armstrong had unusual confidence in himself and he has delivered the goods as you well know. He studied all the different kinds of policies and decided that with his limited means, he couldn't afford to take out even straight life insurance for any decent amount. He made up his mind that he could spend about two hundred dollars a year for insurance and no more. Someone suggested a convertible term policy to him which would have a clause in it to the effect that he could, within the first eight years, change it into any form of insurance he liked, without being re-examined. It cost him about ten dollars a thousand. He insured himself for twenty thousand dollars."

"I don't quite understand," I interrupted. "Do you mean that I pay your company for ten years and at the end of that time I get nothing for my money?"

"Exactly," said he, smiling. "Except for one thing. You're twenty-eight years old now. A straight life policy would cost you about twenty-five dollars a thousand. A term policy for ten years would cost a little under ten dollars a thousand. If you had no way of converting this policy during those ten years, I wouldn't suggest it. But you can convert it without another physical examination. Now no man can tell whether he would remain well enough for ten years to pass an insurance test. Don't you think you could afford two hundred dollars a year for insurance now?"

"I guess so," I answered, rapidly turning the matter over in my mind.

"Then in six or seven or eight years, don't you think it possible you could afford three times that sum?"

"I ought to."

"Well, then I'd take out a term policy. You'll be fully insured for a sizable amount which you can convert when you feel able to.

'Of course, there are certain disadvantages in term policies which any agent can easily point out to you. They have no borrowing value. They do not extend your insurance if you stop paying premiums. They yield no dividends. To a man who has a regular and definite income, I wouldn't recommend them. But a young doctor, with brains and push, knows that the first lean years will bear fruit later on and he shows his common sense by looking ahead. The first ten years, I understand, are the hardest ones. It is just in those ten years that everything may happen to a young man, and if he is married and leaves a fairly good-sized family they are left practically destitute if he has no insurance."

"There's only one thing that worries me, Mr. Alvord," I said. "It may happen that my payment may be due at a time when it would be inconvenient for me to plunk down two hundred dollars."

"Don't worry about that, my friend," he answered quickly. "When your premium is due I'll pay it. Our company does that for lots of customers. We'll notify you that it is paid and you can settle with us at your convenience."

"That's mighty kind of you," I replied, somewhat relieved.

"Don't you believe it, Doctor. It's good business. You see I'm banking on the future, too. I expect you're going to make a good income and that from time to time, you will increase the amount of your insurance. If I treat you right, you're bound to tell others about it and most likely you'll do the right thing by me."

Evelyn rapped on the door at that moment. When she came in, I introduced her to Alvord and told her what we were talking about. Her face paled a little when I talked of dying.

"That's the only hateful thing about insurance," she said in that mournful tone of voice that even a sensible young women will use when she visualizes her new husband as dead. "Of course, you have to have insurance, John, but don't tell me anything about it."

Then she walked out of the room with tears in her eyes.

"All wives act that way if they love their husbands," said Alvord laughing. "Women are superstitious about insurance. I don't know why?"

He got up to go.

"I'll send the policies round for you to sign and a couple of doctors to examine you will follow. Some day, Doctor, I'm coming in to talk over accident and health insurance with you. I'll wait just long enough to feel that you've saved up a little more cash."

"Oh, I'll take a chance on getting along without that for a time," I said.

"Take my advice and don't do it, Doctor. Just let me mention one or two facts to you. Your income is over twenty-five dollars a week, isn't it? But if you were taken sick your income would cease. Twenty-five dollars a week would look like a neat handy sum then, wouldn't it? And all it would cost you would be the small sum of sixty dollars a year."

"But I might pay that for twenty years," I put in, "and never get a cent."

"Right you are. Many people argue that way when they are well, and cuss themselves for their lack of foresight when they are sick. But that's the wrong way to look at the proposition. Let me ask you this: How much would you pay to keep well for a year? Would it be worth sixty dollars?"

"Oh, more than that," I replied.

"Then make up your mind that the reason you pay for accident and health insurance is to keep you from an accident or sickness. That reasoning may sound absurd, but it isn't. Every year you pay an insurance company a premium with no return, just so many years have you been making money on your investment."

I couldn't help laughing. It seemed to me Alvord was the slickest proposition I had ever met. He could argue that black was white and you simply had to agree with him. He had me multiplying that twenty-five dollars a week fifty-two times over and reckoning how much I could stick the company if I had a long illness. But I got thinking how much less that was than the income I was enjoying right then. It certainly would be worth while to insure myself to keep well.

I felt like a bloated millionaire. Twenty thousand dollars! Gee, what a pile of money and all mine—if I died. It was tough to have to die first. I wondered why more people didn't commit suicide to get the money.

I found Evelyn in the bedroom. Her eyes were ready to bubble over.

"What's the matter, darling?" I asked.

"Oh, nothing."

"Yes, there is. Tell me what it is this very minute." I took her in my arms whereupon she closed up, limpidly rested against me and let the bubbling fountains flow.

"I don't want you to die," she sobbed.

"I'm not going to die, you silly. "What ever put that in your mind?"

"That insurance man, I hate him. We aren't married a week before you think of dying."

"Well, if that isn't the limit," I said half angrily, although I was amazed that anyone could think that way. I pulled out my big half dirty hankerchief from my hip pocket and mopped her eyes.

"Aren't you a big baby? Does you love your husband as much as that? I promise to live to be a hundred years old. I promise to live until my false teeth are so loose, they won't stick in." Then I made a face like a skeleton until I got her laughing.

She got up and put her arms lovingly on my shoulders.

"I'm a silly, honey, I know it," she said. "But, Boysy, promise me one thing. I don't care how much insurance you take out, but don't tell me about it. You'll promise what I'm going to ask?"

"What is it, darling?"

"You'll let me die first?"

I promised.

CHAPTER XV.

It didn't take Evelyn and me long to get comfortably settled in our cramped quarters. We loved the apartment, but both of us decided that as soon as we saw our way clear to it, we'd move to a larger place.

"Let's try to be as happy as we can here, dear," Evelyn remarked to me one morning. "I know I'm in your way most of the time and can't get out of the way of your patients. I'm glad I can't. I want to know every one who goes into your office and all about them."

"You've got another guess coming, honey," I said. I knew that sooner or later Evelyn and I would have to settle this matter. Every young doctor who marries, has the same trouble. It's only natural that his wife should want to know about his business. It's right that she should know within reason.

"You see, dear, much as I might want to, I can't tell you everything about my practice. It isn't fair towards the patients."

"I don't see why not," she interrupted. "I think it's horrid for a doctor not to tell his wife things. I don't want to be unreasonable, John, but there is only one way I can be happy—if you tell me everything."

I couldn't help smiling when I thought of all the things that had happened to me already and all the things that were bound to happen in the future. Every doctor has his little scapades, whether he wants them or not. He gets so used to them that they mean nothing to him, but they would seem awful if whispered into an empty ear.

"Dearest, let me tell you how I feel about this," I said, gently. "I know you will feel the same way about it before I get through, particularly if you will put yourself in the patient's place. First I want to say to you, honey, that I'll tell you everything I can about myself, my practice, my finances. But there'll be some things I can't tell even you. You'll have to trust me through and through. I think a doctor's wife has to do more trusting than any woman I know. Every patient who comes to see me thinks my office a sacred edifice where he can speak more freely and with more surety than a devout Roman Catholic feels he can confess to his Confessor. He knows that whatever he says will not go beyond these office doors. Now, of course, there are lot of things patients have the matter with them which can be told, but there are lots of them that cannot. Suppose you were going to have a baby and went to Doctor Slawson and Doctor Slawson told his wife, and the next time Mrs. Slawson met you on the street she said: 'How are you getting on, my dear?' How would you feel toward Doctor Slawson? People come in to ask me questions about the most intimate, personal things in their lives They don't expect me to tell you about them. They don't expect you to ask about them. All I ask you to do is to put yourself in the patient's place.

"I know of more doctors who have gotten into trouble through telling their wives things than you can shake a stick at. I don't suppose they tell things consciously, but telling causes a mix-up somehow,

You know Flaxon, don't you? There's a nice example. A friend of his wife's came to see him professionally. She came often and Flaxon's wife knew it and began to ask questions. He wouldn't tell her anything about the case. Then one day, Mrs. Flaxon met the husband and asked how his wife was getting along. 'I didn't know she was sick,' he said. 'Well, I don't know anything about it except that she has been to see the doctor quite often lately.' The upshot of the matter was a divorce. Flaxon was treating her for a venereal infection. She had been unfaithful to her husband."

"It serves her right," said Evelyn, indignantly.

"That's not the point, dear," I continued. "It was none of Flaxon's business what she had been doing. He was her doctor and it was up to him to cure her. It wasn't even his business, or so he must have thought, to tell the husband."

"But he didn't tell his wife anything," Evelyn said. "Maybe if he had, she wouldn't have let the cat out of the bag when she met the husband."

"Perhaps, dear," I answered, quietly. "But you've missed the point. It was Flaxon's business. It was the patient's business. It was no one else's business."

"I'll try to be good, John, dear," she said, "but don't forget Boysy, that no matter how sensible a woman is, she has a large bump of curiosity—and if she loves her husband she can't help a little streak of jealousy."

"All I ask you to do, Evelyn," I said, as I took both her hands in mine, "is to trust me implicity. I love you too much to do anything that would give you cause to complain. Under no conditions let circumstantial evidence convince you."

I had shown Evelyn the anonymous letter I received before I sent it to Police Headquarters. I told her not to worry about it and she promised she wouldn't.

A few nights later the door bell rang about eight o'clock and Evelyn ushered in two of the wildest looking Italians you ever saw. A few moments later they were closeted with me in my office and we were having a serious but excited confab through one of them who came as interpreter. Evidently the other fellow had gotten a jab with a knife between the ribs by an unfriendly rival. The wound had become infected. You know how excitably some Italians talk.

I had no reason to be alarmed. But when they left, after having handed me a dirty five dollar bill, I found Evelyn crouched behind the office door, pale as a ghost, with lips firmly closed, and a big carving knife tightly clutched in her hand.

"Are they gone?" she whispered.

"Sure thing."

Then she collapsed in a dead faint on the floor.

When she came to, my darling, little wife told me that she thought we were having an argument in the office. Our voices seemed loud and angry. She was sure these two men were friends of the person who had written me the anonymous letter. So my champion went hurriedly to the kitchen, cleaned off the big, long, greasy carving knife with a towel and stood guard behind the door.

"And you know, Boysy," she said, tearfully, but laughing now, "if I had heard a tussle or you had cried for help, I'd have rushed right in and killed them."

"I'm sure of it," I said, laughingly. "A big, strong woman like you could lick two men easily.

My article in the New York *Medical Journal* at last appeared in print. I read it proudly. It looked so good I could hardly believe I had written it. It seemed too nice. Evelyn didn't think so. She said it sounded just like me.

"You must keep on writing, dear," she added. "I'll take up knitting so I can sit right next to you in the office very still and mousey. I expect everyone will know my big doctor before long."

I was particularly proud of one paragraph in that paper because it showed that I knew something outside my own specialty. I had said:

"It is my opinion that no case of enlarged glands of the neck (tuberculous or otherwise, and in a large percentage of cases a differential diagnosis is impossible without the removal of a specimen) should be operated upon radically, without at the same time, or better previously, correcting all pathological conditions in the mouth and nasopharynx which might act as a source of infection. Unless this procedure is followed, the subject of a thoroughly radical operation is theoretically left without protection against systemic invasion by a cause still active, and if the operation is less radical and only the enlarged and superficial glands are removed, the remaining glands will almost surely become infected by the original causative agent. The patient is thus worse off than if he had had no operation at all."

A few days later reprints of the article arrived. I had prepared a list of two hundred doctors to whom to send them. I had received many reprints of medical articles from men I didn't know, and almost invariably, if they were surgical, I looked them over, even if I didn't read them carefully. Sending out reprints seemed to be a good way to let other men know what you were doing. Most of the doctors on my list were men in my own neighborhood from whom there was a possibility of getting cases. Of course, a few of them went to men like Doctor Armstrong.

"Got your reprint, Snaith," he said to me encouragingly the next time I saw him. "Damn fine paper, Snaith; you write well."

I glowed all over.

"Keep up the good work. How many reprints did you send out?" he asked.

"About two hundred."

"Send out about five hundred next time," he said. "It may cost you twenty-five dollars and a little time but it's worth it.

"Reading papers before medical societies and writing papers for journals, good paper I mean, are about the only legitimate means a doctor has for advertising himself to the profession. You know we have a peculiar code of ethics which were formulated at a time when doctors wore long beards, black frock coats and when medicine was considered a mysterious art. At that time practice was severely localized because a doctor had no telephone and had to travel on his own two legs, on horseback or in a buggy seat. He built up a neighborhood reputation and outside reputation was hardly necesary. But times and conditions have changed with the introduction of the telephone and the automobile. However, doctor's ethics haven't changed, that is, not much, which shows that we don't move as quickly as we might. To my mind if every doctor were allowed to advertise himself as much as he pleased, provided he was able to deliver the goods, the better off all of us would be. What harm would there be if every doctor were allowed to state his specialty on his shingle? It would be a great convenience to patients and would save a great deal of time for the doctor; yet our old fashioned notions forbid such a thing. It's done in Europe and no one suffers. It's the same with inserting a card in the newspapers. The only doctors who do that now are the quacks who advertise and scare the life out

of every young man who comes to them. If legitimate practitioners advertised, people could be more discriminating and incidentally newspapers would be more discriminating, too. There is a column ad running in the papers now in which a man states almost positively that he can cure catarrhal deafness. What rot! And yet that ad was in one of our best and most conservative newspapers. The only man who can't cure deafness is the man who says positively that he can. Supposing that same space in the newspapers were taken up by the cards of ten competent ear specialists. Patients would then know some good man to go to."

"I'd be very glad to have you tell me, Doctor Armstrong, how you became so well known."

"That isn't easy, my boy," he said. "There were many factors, the chief among which was to let my fellow practitioners know, by any legitimate means, that I was really doing something worth while. I began first by writing papers and sending them out like you are doing. My first paper brought me in a case for consultation from a doctor I didn't know. I have to laugh when I think of it.

"That was when my practice was very small and I was very young. I looked young, too. The patient made an appointment for five in the afternoon. I opened the door for him. No one else was home. 'I'd like to see Doctor Armstrong,' he said. 'I'm Doctor Armstrong,' I answered, 'come right in.' He told me years after that he was so thunderstruck when he saw such a young man, that his first thought was to beat it to the corner. I got him into my office. It didn't take me long to convince him that I knew my business and the long and the short of it was I cured him. I think I got about twenty dollars. But I wonder if you can imagine how much that man has meant to me in dollars and cents during the past twenty-five years."

"I suppose a good deal."

"It can't be reckoned in hundreds but in thousands of dollars. Mr. Ransom, whom by the way, is now one of my bosom friends and very proud of me, made it his business to steer everyone he could my way. He was richly connected. He told everyone how young I looked and my youthfulness became an advertising asset. It seemed to mean to people that I knew all the newest wrinkles.

"I kept writing and writing and writing and every once in a while I'd get a chance to read a paper before some medical society. Have you joined any societies yet?"

"Only one, The County Medical Society."

"That isn't enough," he resumed. "Take my advice, Snaith, and join all the societies you can and go to them, even if you are bored to death. Most of the stuff you hear won't interest you. It will probably be stuff outside your line, but you'll met the men that way and they'll get to know you and your work. The doctor who hides himself in a nutshell will find himself way behind when he wants to crawl out. I don't say all your practice will come from other doctors, but you want as many men as possible to know you, so that if a patient says he wants to come to you, the doctor, his family physician will be glad to have him come. I used to go to one society meeting where I always slept until the refreshments were served. I got to be good friends with a lot of those men around the tables.

"This is part of the advertising game. Beside advertising oneself among doctors one can advertise himself legitimately among patients, too. I can't help you out much there, for it depends on your own personality and how much confidence you can instill. Some doctors use a negative attitude toward patients with the result that they never succeed. Always adopt a positive attitude and at the same time never let a patient feel that he is worse than he is."

"Just what do you mean by a positive or negative attitude?" I asked.

Armstrong smiled before he answered me. "That's rather a poser. Difficult to explain," he said slowly, as though he were thinking hard to explain it to me right. "I might say a negative attitude is one in which the physician doesn't force his personality on the patient; doesn't project enough confidence. He's lukewarm in his enthusiasm about a patient's illness. And he does something which keeps the patient from getting well as quickly as he should. He never has a cheery word. He looks too solemn, with the result that the patient leaves the office surrounded by an aura of discouragement. Now a positive attitude, of course, is just the opposite. The physician projects himself into the patient. He carefully overcomes the patient's doubts about getting well in a hurry, he is willing to take all the responsibility of the illness off the patient's shoulders. Some physicians are born 'positives,' others develop into 'positives' as soon as they realize their potential qualities. Every patient who comes in to consult such a doctor knows that he is better. You've often heard patients say that all they have to do is to see the doctor and they feel better. Haven't you? Naturally it's a matter of personality. No matter how rotten I'm feeling, I always greet every patient with a smile of confidence and good-will and I invariably say, 'Well, my dear, I see that you are better this morning.'"

"Kind of faking it, isn't it?"

"Doctors are the biggest white liars on the face of the earth. They have to be. Tell any patient he's in a hell of a mess and see where you land.

"Did you ever hear of suggestion, Snaith?" Dr. Armstrong asked.

"You mean hypnotism as practised by Braid, Bernheim and Freud?"

"I mean something far more important, for it is the foundation of successful medical practice and brings in our positives and negatives again. You know the old statement which proves itself over and over again. If a perfectly well person keeps repeating to himself every morning when he gets out of bed and all day long that he feels miserable, he will be down sick at the end of a week. Or have a nervous woman meet a dozen friends in the course of a day who tell her she doesn't look well and she'll go home and go to bed. The suggestion is first given by others and then such people continue to auto-suggest to themselves. Result? You know it as well as I do. Now you seldom see people using auto-suggestion to keep themselves well, although there are plenty of well people who use auto-suggestion to make themselves sick. You tell a person to say to himself, when he gets up in the morning, 'This is a beautiful day,' and he'll think you are a fool. You're not though. The Christian Scientist auto-suggests to himself all the time and he remains well. It isn't kidding. It's the influence of mind over matter which we all have proved to ourselves time and time again.

"The great trouble is that health is so common that we don't appreciate it until we lose it."

"We've gotten away from the subject we were talking about," he resumed. "The words 'medical advertising' don't sound very nice, do they? There's one tip I want to give you before I forget. It fits in here. Capitalize your patients."

"You've got me again, Dr. Armstrong. I don't quite understand what you mean."

"I'll try to explain. There are certain patients who pay their bills promptly, who give you little trouble and who forget all about you as soon as their immediate trouble is over and they have settled their bills. They are good steadies and help the good work along. But there are two other classes of patients who are just as valuable although the direct monetary return is not as great. In the first class are those patients who go about bragging of their doctor (just as though you didn't belong to anyone else), and make it their business to lug everyone in to you by the back of the collar. You have to make the second class. They are patients whom you cure in one or two visits. 'Doctor So-and-So had me coming to him ever so long,' they say. And this is the way to answer them: Mr. So-and-So, I've cured you in a very short time. You admit it. Now I don't believe in bragging about myself, but my policy is to get my patient well as quickly as possible. I don't want to make money out of you. Your good-will is worth far more. I prefer your telling others how quickly I cured you. I want your recommendation to someone else. What doesn't come out of your pocket comes out of his or someone else's he recommends.' That's capitalizing a patient. It's an honest, clean and I might say, a suggestive way of practicing medicine."

When I left Dr. Armstrong there was no doubt in my mind that I had heard a great deal to profit by. Medicine had gotten beyond the stage of humbuggery, but human nature was the same as it ever had been and people wanted the doctor who would ease their minds as well as their bodies as much as ever. Unconsciously I had worked some of his ideas.

I was determined on one thing. I'd join as many medical societies as I could, even if I snored so loudly at them that every one would want to amputate my uvula.

CHAPTER XVI.

Things weren't going right with Vandeleer, I hadn't seen him in a long time, but all sorts of rumors were afloat. It is hard to tell how such rumors get started, but there is no doubt about it that when they once get going, they are hard to stop. A number of the fellows I knew had Vandeleer's number and would ask me if I had heard anything. Even Aronson had stopped me one day and had told me that Vaneleer was getting a reputation down on the East Side.

"I don't know why the devil he does such things down there," Aronson said. "He certainly can't get much of a fee. Those women don't pay more than ten dollars for a job like that."

"You don't mean that he goes down to their homes and does his dirty work for that amount?" I asked.

"Not on your life. He does it in his office. He's got a great scheme, I hear. He's got some woman planted as a witness, in case of trouble, and never allows a patient to see him. He wears some sort of a mask over the lower part of his face."

"I am surprised that he has that class of practice," I said. "I thought his practice was getting pretty high class from the number of automobiles I've seen standing in front of his door."

Aronson smiled.

"Guys like him get the high-class practice, too," he said. "We have the same kind of men down on the East Side. The autos stop in front of their doors, too. You know, Snaith, there isn't much difference between the rich woman and the poor woman when it comes to not wanting babies—except that the poor woman has more good reasons for not wanting them. There's some excuse for helping a poor woman out of her troubles. She probably has a brood of kids at home who make her life one endless misery. But there is very little excuse for the wealthy woman. I'll admit there may be exceptions, but the exceptions as a rule don't have to go to a man like Vandeleer. I'm afraid he'll get hooked some time."

There were others who felt the same way, so I wasn't surprised one day to see Adams, one of our brilliant young gynecologists, and have him tell me that the County Medical Society had got the dope on Vandeleer and were going to get him up on charges.

I knew it was none of my business but I determined to go to see Vandeleer and warn him. I didn't feel that it would do any good and no doubt he would kick me out, but that didn't matter.

A half dozen automobiles were in front of his door. The waiting room was filled with women patients, some well dressed, others without hats and shawls over their shoulders. In one corner was a comely, refined woman who seemed to be shielding herself from the rest. She certainly looked out of place there. I mentally placed her among the uninitiated in that sort of game. Near her was a brazen faced, painted dame who as much as told you that she had been there many a time before and didn't care a hang who knew it. Opposite her, two shabbily dressed young women were whispering. They looked like shop girls who had gotten themselves into trouble and were nervously waiting their turn to see the "miracle man." Not one of them in that waiting room (with the exception of the refined woman over in the corner) looked as though she were giving the moral side of her condition a moment's thought.

"Tough luck that women have to have such troubles." I said to myself. "Behind everyone of them skulks a man. How many of those men are giving any of these women the proper consideration? It seems a shame that men can do just as they please—morally speaking—and that the woman must invariably suffer."

I was ushered into a little cubby hole, once used as a pantry, where Vandeleer came in to see me. He eyed me up and down suspiciously. His shitty gaze took me in from head to foot.

"I suppose you wonder what brought me over here?" I said.

"I am rather curious."

"Dr. Vandeleer," I said seriously, "you may not like what I am going to say. I've come with the sincere wish to do you a good turn and I've come to warn you. There are certain ugly rumors afloat."

"What kind of rumors?" he asked sneeringly.

"To put it bluntly, that you have been doing illegal operations."

"Well, what if I have? In the first place, it's none of your damn business and in the second place there isn't anyone who can prove anything on me."

"So you admit it?"

"Say, are you a detective, coming snooping around here? I don't admit anything. I got a good class of patients who will tell you I give them what they come for and it ain't anyone's business but theirs and mine."

"I suppose you don't know that you are up on charges before the County Medical Society?"

"Charges be damned. Tell them to let me alone or they'll get their fingers burned. Much obliged, Doctor," he said with that sneering smile that made me feel than I wanted to smash him. "When I want your advice or anything, I'll let you know."

That ended me with Vandeleer. I made up my mind that it would serve him right if he did get into trouble. Someone was sure to peach sooner or later.

Of course such practices couldn't last without being unearthed sooner or later. There was nothing to bring Vandeleer to my mind for about a month, when one morning Ahearn the detail man was announced.

"They've got him at last, Doctor," he said contentedly as he seated himself at one side of my desk.

"Who?" I asked, although I strongly suspected.

"That dirty devil, Vandeleer. He's going to get what's coming to him now. By the way, why didn't you tell me that you were the man who gave the dope for him on the case I mentioned? I'd have done anything I could to help you."

I paled.

"What do you know, Ahearn?" I asked chokingly.

"Now don't get alarmed, old man. Everything will be alright," he said soothingly. "I happened to hear your name mentioned and I immediately went to my friend in the District Attorney's office to find out what they knew. I was considerably relieved when I was told the only thing against you was that you had given a dope for this fellow once. I asked them to do me the favor of holding off on you until I could come up and see you and here I am."

The sweat was pouring off my forehead. The world seemed to have dropped from beneath my feet. So I up and told Ahearn all that had happened and incidentally mentioned that there was no way in the world for anyone to tell that the operation wasn't being done for perfectly legitimate reasons.

"Ahearn, you can tell them all that I told you. It doesn't incriminate Vandeleer and it doesn't incriminate me. I beg of you, if you have any influence in the District Attorney's office, that you will keep me out of this if the case comes to trial. I don't care for myself, but I've been married only a few months and the disgrace would kill my wife.

"I'll do all I can, Dr. Snaith," he said. "Fortunately he won't be placed on trial on this case. They couldn't get the evidence against him. But they have something better up their sleeves that will land him where he belongs. I can't tell you about it now. It'll make a good reading in the papers in a week or two."

Of course I told Evelyn all about it. The two of us almost worried ourselves sick the next few days. We bought all the papers and at the end of the week, the whole thing came out in full blast on the front page of every newspaper with a picture of Vandeleer which I must say, made him look more like a conquering hero than a man who was about to be placed behind the bars. The *Evening Sun* had a particularly vicious article with roaring headlines:

DOCTOR ARRESTED FOR ILLEGAL PRACTICE.

CROWDS OF WELL-DRESSED WOMEN IN AUTOS IN FRONT OF HIS DOOR.

District Attorney Sims Has Damning Evidence.

"Dr. A. G. Vandeleer, who has a sumptuously fitted up office, at 912 West 96th St., was taken into custody by Detective Sheridan of the District Attorney's office early this morning and is now lodged in the Tombs until he can procure bail to the sum of $20,000. He was indicted before the Grand Jury on Tuesday morning.

"For some time past, Dr. Vandeleer has been under suspicion. Crowds of women have flocked to his office daily. It was apparently difficult to get evidence against him until District Attorney Sims managed to get one of his clever women detectives beyond the doors as a patient.

"It is understood that Mrs. Dennis, an exceptionally good operative, got a proper line on the doctor's practice. She has been investigating for weeks. One thing she found out was that the doctor wore a mask over the lower portion of his face and a white cap on his head so that only the eyes could be seen. This was done so that no one could identify him. Mrs. Dennis states that she went to Vandeleer's office, claiming that she was in trouble and needed his help. When he was about to begin his nefarious work she jumped up, pulled the mask off the doctor's face and charged him with his crimes.

"Doctor Vandeleer denies the charges and states that his practice is most ethical. He demands that the District Attorney prove the charges. Bail has not yet been furnished. The penalty for this crime is twenty years in State's prison."

In a few weeks, Vandeleer was put on trial, but as often happens, it was impossible to prove the charges. No patient could be found who would testify against him, and the woman detective had really not had anything illegal done to her. The difficulty that the District Attorney is up against in such cases is that the witnesses he wants most are just the ones he can't get. It is seldom that a doctor's patient will peach on him. It's one thing to be morally certain of a man's crimes and another to be legally certain. One had only to look at Vandeleer to know there was a kink in his moral make-up. But to prove it was another thing.

At the Dispensary, a few days after the trial, Aronson said to me:

"I see Vandeleer got off. Suppose he'll be up to his old tricks again.'

"Not for a time, I guess," I answered. "These few weeks in the Tombs have probably taught him a lesson. Moreover, patients will be scarey of coming to him for a time."

Aronson laughed.

"Make you a bet, Snaith," he said. "I'll bet you that within a week he'll have more trade than ever."

"How do you make that out?"

"Advertising. He's had the best advertising possible. It isn't very clean advertising, but what the devil do the women, who want to come to him, care? The newspapers have seen to it that every woman who can read print knows there is a Doctor Vandeleer. There will be a line of patients a mile long."

"But he'll probably be scared, don't you think? He knows he'll be carefully watched."

"Say, Snaith, you don't know that breed as well as I do. He'll be cock sure of himself now that the District Attorney had to let him go. He knows he won't be bothered for some time again."

Aronson was right. I saw Vandeleer at a distance about two weeks later, but near enough to notice that his incarceration in jail had not made him skulk.

Things happened thick and fast to Vandeleer. First of all, news was spread broadcast in the profession that he was busier than ever, and I suspect that many cases were sent to him by other men who didn't dare soil their hands, but were perfectly willing to give his address to a misguided lady. Secondly, he bought a beautiful new Cadillac limousine. Thirdly, Marie, his financee, broke her engagement. Apparently the notoriety of her husband-to-be was more than she could stomach. I wondered how he took it. Marie began to go out with the boys again and I was given to understand that she did't relish being teased about Vandeleer. Then the awful thing happened.

One morning, there was a ring at my bell, and, before I knew it, my old friend, the dope-fiend, was standing before me. I hardly recognized him at first, for he wore an immaculate neat, gray-striped suit, his face was clean and intelligent, and his hair was neatly brushed back. His narrowed pupils put me wise.

We glared at each other for a moment.

"What the devil are you doing in here?" I asked hotly.

(Continued on page 147)

The Medical Times

A MONTHLY JOURNAL

OF

Medicine, Surgery, and the Collateral Sciences

ESTABLISHED IN 1872

EDITED BY

H. SHERIDAN BAKETEL, A.M., M.D., F.A.C.P.

ARTHUR C. JACOBSON, M.D.

Associate Editor.

Contributions.—EXCLUSIVE PUBLICATION: Articles are accepted for publication on condition that they are contributed solely to this publication.

When authors furnish drawings or photographs, the publishers will have half tones and line cuts made without expense to the writers.

SUBSCRIPTION RATES.

(STRICTLY IN ADVANCE)

UNITED STATES (Including Alaska, Cuba, Mexico, Porto Rico, Hawaiian and Philippine Islands)	$2.00 per year
CANADA	$2.25 per year
FOREIGN COUNTRIES IN POSTAL UNION	$2.50 per year

SINGLE COPIES, 20 CENTS

Definite written orders for THE MEDICAL TIMES are required from all subscribers, to whom the journal is thereafter regularly forwarded.

Notify publisher promptly of change of address or if paper is not received regularly.

Remittances for subscriptions will not be acknowledged, but dating on the wrapper will be changed on the first issue possible after receipt of same.

All communications should be addressed to and all checks made payable to the publishers.

MEDICAL TIMES CO.

ROMAINE PIERSON, *President and Treasurer*

H. SHERIDAN BAKETEL, *Secretary*

95 Nassau Street, - - - New York

NEW YORK, JUNE, 1921.

Thoughts Prompted By the State Meeting.

The 115th annual meeting of the Medical Society of the State of New York, held in Brooklyn the first week of May, was a brilliant success from every point of view. The enthusiastic participation of the public marked a great step in community medicine of the present enlightened sort. The greatest credit attaches to the efforts of Dr. William Francis Campbell and Dr. J. Richard Kevin, as well as to those of their able lieutenants.

The health exhibits on the main floor of the armory in which the convention was held covered the widest possible range and adequately presented the hygienic, sanitary and commercial features that were marshalled for the benefit of public and profession alike.

The section work reached the high water mark of scientific excellence and the banquet was a delightful function.

At the general meeting Dr. Kevin and Professor Barker made addresses that excited the keenest interest because they dwelt upon the subjects that are challenging the best thought of the profession today, albeit differing vastly in their viewpoints. We should like especially to register our admiration of the masterful speech of Dr. Campbell at this meeting in which the ideals of medicine were limned with a scholarly and felicitous art. The remarks of this gifted orator should be read by all who were not privileged to hear them, although the personal charm and forcefulness of the speaker will, of course, be missed.

Dr. Kevin pins his faith to the survival and assured place in the future scheme of things medical of the general practitioner, still the grand figure amidst the general welter, not abashed in his wisdom and experience, inevitably the ultimate integrator of his colleagues' efforts along the lines of specialism; modest, but maintaining the firmest hold of all upon the Caduceus whilst the baffled doctrinaires carp and rail and do not understand.

This seems to us a compelling view, despite the greater and greater trend toward specialism glimpsed by Professor Barker, its exponents to work largely in groups.

There are those who have complacently visioned the State itself in the background of medical practice carried on in a wholesale manner, the great body of the profession and practically the whole population to be drawn into the horrid scheme. They have even intimated that it will be necessary to train hordes of non-professional workers as coadjutors, since there will not be enough standardized physicians to put their precious plans into thorough-going effect. Such schemes, of course, take into no account whatever the general-practitionar type, but postulate a kind of jinx who will automatically condense into working formulæ the findings of diagnostic groups, and presumably apply them through the bob-tailed assistants to whom allusion has been made. Obviously, such a system would simply be a bureaucratic and department store-like monstrosity. Not beautiful as an ideal, and a menacing thing if ever realized; *kultur* applied to medicine, with humanism lagging far behind.

All this chaos in thought as to the future of medicine throws a dark shadow over our professional prospects, and medical men are not permitting their sons to knock at the door of the temple of Asklepios. What promise is there for the young man of good parts that he should enter such a Bedlam?

The need is plainly for a total change in perspective and a determination to resist the encroachments of State medicine at every point, however glamorously the propect be pictured.

We agree with Dr. Kevin that the ignoring of the general practitioner by our doctrinaires is the fatal flaw in the present current of things, and we share his faith that the general practitioner cannot be blinked if our science is to be tempered by humanism and the profession is to remain a coveted field of endeavor.

Let us have group medicine of a rational and natural sort, but let us condemn and defeat the Prussianization of the profession by a paternalistic State which by propaganda will bludgeon or narcotize society into believing that it has progressed in this field.

Let us destroy utterly the insidious forces that would prevent the creation by our schools of that humanistic integrator, the general practitioner, and let us train and safeguard him so that he can function properly and self-respectfully in a State that is not a nightmare of European paternalism and in a profession that is not obsessed by socialistic, or for that matter any other political, ideals.

Then, and not till then, can we advise our sons to take up the torch relinquished by their fathers after lifetimes of consecrated service in a profession that is loved because worthy of our fealty.

Freudians Take Notice.

The following extracts from an article by the well-known reformer, Wilbur F. Crafts, Superintendent of the International Reform Bureau, are worth study as examples of self-revelation, not to say betrayal.

What preoccupies the gentleman's mind seems obvious enough. He fears certain things, yet is fascinated by them:

"Let us banish from stage and dance hall and screen and billboard, nude dances in harems; the bare-limbed bathers parading among ogling men; the desecrating glimpses of childbirth; the disrobing scenes in bedrooms and bathrooms; the peeping into brothels, and apartments of kept mistresses, and bacchanalian feasts in bachelors' apartments; the high kicks of ballet girls; the lascivious kiss and embrace in which body and soul are surrendered to lust."

Quite a vocabulary, to say the least.

But the worst is yet to come:

"From my first tour of European art galleries I brought home a large portfolio of photographs of the finest nude female statues. . . . I laid them away to be shown only to the few friends sufficiently educated to get only cultured enjoyment from their beauty. That is my mature conviction as to even the most chaste of nude art, and copies of it—that it should not be spread before those unprepared to receive its artistic message."

Comment is unnecessary.

The article in question appeared in the May issue of *Shadowland*.

Drugs and Basal Metabolism.

Basal metabolism as modified by drug action offers an interesting field for experimental research. Thus it has been determined that caffein lowers the rate of basal metabolism, confirming the already known fact that this drug is a retarder of tissue waste. This action doubtless throws some light on why caffein in the form of coffee acts upon certain neurotic persons like a monkey wrench thrown into delicate machinery, disorganizing the normal processes of oxidation and irritating the nervous system by reason, presumably, of interference with the burning up of poisonous wastes.

It is to be expected that continued researches along this line will rationalize further the use of various drugs in metabolic disorders.

A curious observation, by the way, is that intellectual effort does not increase the rate of basal metabolism. One would have supposed, theoretically, that any kind of "work" would run it up more or less. Do we not expend energy when we think hard, and if so, why is this not reflected by the apparatus employed? It is to be regretted that anxiety states and mental depressions and exaltations incident to psychiatric disorders cannot be checked up by observations of the rate of basal metabolism, and our diagnostic resources thereby enriched.

Hypertension and Success.

During the discussion on hypertension at the 115th annual meeting of the Medical Society of the State of New York, Dr. Eli Moschowitz laid stress upon the frequent occurrence of this condition in successful men. It would seem that the price paid for what passes for success in America is too great, if at the age of forty or thereabouts one becomes a candidate for arteriosclerosis and all its pathological sequelæ. The pursuit of the dollar seems to be definitely associated with the range of morbidities initiated by hypertension. How shall it profit a man if he gain a million and attain a contracted kidney? The game in its more strenuous aspects is not worth the candle.

There must have been but little arterial disease among the ancient Greeks, with their passion for moderation in all things. Their way of life was surely better than ours, and what they achieved through it is beyond computation.

From a pragmatic standpoint the Greeks outclassed our modern captains of industry.

Our "practical men" are fools, for all their so-called success.

Brindellism.

It was no surprise to us to learn that Robert Brindell, the labor leader now serving a term in Sing Sing because of extortion, has the mentality of a child capable of completing the sixth grade in a grammar school. This man drew a salary of $30,000 a year from the Building Trades Council and carried on large-scale oppressive activities now familiar to most of us through press reports of his prosecution.

The fact that this man could operate as he did for certain interests is an indictment of the very low intelligence of his victims, and simply proves what we have often pointed out—the relative feeble-mindedness of large groups in our population.

Such revelations throw a strong light upon the readiness and ease with which majorities can be successfully subjected to propaganda of any kind whatever, and emphasize the unpleasant fact, among other things, that it will never be possible to abolish war, for it is upon the inexhaustible supply of the Brindell type of "executive" that war-mongers shrewdly depend, in their case investing the necessary activities with a camouflage of righteousness and patriotism, a thing practically impossible to beat.

How rich in Brindells Germany must have been. How, without them, could she have Prussianized her masses? When this type is given power even the intelligent elements in a nation are at its mercy.

Miscellany

CONDUCTED BY ARTHUR C. JACOBSON, M. D.

A "Grand" Opportunity.

We have received the following communication from the magazine *Physical Culture:*

Physical Culture Corporation.

Dear Doctor:

RE: SYPHILLIS [*sic*]

Physicians everywhere have been trying to get away from the German brand of science in the cure of syphillis [*sic*].

Because of this, no doubt you will be interested in a most amazing article of a personal experience which we have published in the April issue of *Physical Culture*.

After taking forty-three salvarsan hyperdermic [*sic*] injections, mercury rubbings and various other treatments for eliminating this terrible scourge, the writer of this article lost faith in the German methods of curing this disease. As a last resort he tested, what might be termed, a real American remedy with astounding results. From a weakling, practically hopeless and helpless, he has changed his physical status to that of an athlete.

Your order must be received at once if you desire a copy of the April issue containing the article on the cure of syphillis [*sic*].

Very truly yours,
PHYSICAL CULTURE CORPORATION.

Logic.

A certain minority have abused alcohol and as a result have beaten their wives, murdered their fellow citizens,

committed various other crimes, and generally brutalized themselves. Consequently the use of alcohol has been prohibited on the part of everyone.

A certain minority have abused gasoline, in that they have used it as fuel for automobiles wherein they have driven recklessly about the streets of our cities, killing and maiming vast numbers of the citizenry. Consequently the use of gasoline should be prohibited on the part of everyone.

(Continued from page 144)

"Howdy, Doctor, I came to see you about a little matter. Mind if I smoke? (he nervously dug out a cigarette from a side pocket of his coat and lit it). Not anxious to see me, hey? Say, Doc, did you get my little billet-doux?"

"So you wrote that note?"

"Huh, huh."

"I suspected as much. Now what the hell are you going to do?"

"Don't be afraid, Doc. Don't be afraid," he said soothingly. "I ain't goin' to do nothin' to you. I ain't goin' to hurt you one bit. I got plenty of coke, and anyway that note was written in fun."

"You've got a brand of humor all your own, haven't you?" I inquired banteringly. "Come across, now. Tell me what you're here for?"

He looked at me squintingly for a moment. Then:

"Know Vandeleer?"

I started.

"Thought you knew him," he continued. "I'm going to get him and I want your help."

I thought rapidly for a moment. I determined that the best thing to do was to humor him and find out all the facts I could.

"What have you got to do with Vandeleer?" I asked, looking at him absorbedly.

He put his hand in his pocket and pulled out a small box which he tremblingly opened. I could see the white shining crystals and knew at once that it was cocaine.

"See that?" he asked as he held it toward me. "That's all I got. I've been getting it regularly from Vandeleer ever since I seen you. He quit yesterday. He won't give me any more."

"How did he happen to feed you?"

His half-cracked, semi-idiotic, laugh gave me a chill.

"Don't think he did it for nuthin'. He fed me because I fed him. I touted for him. Got him patients. But now, since he's so all fired popular, he won't give me no more."

"Is that all you've got against him?" I asked.

"Not by a damn sight! He-he killed my girl!"

I began to see light and wondered what I should do. There was no doubt in my mind that this fiend would fill himself full of coke until he got up his courage and then go for Vandeleer. By piecemeal I got the story out of him. The girl was a dope fiend, too. One day she found herself pregnant. Without telling Evans about it she consulted Vandeleer. She became infected, was sent to a hosiptal and just before she died, she confessed to Evans and made him promise to get Vandeleer.

"But where do I come in!" I asked.

"I want you to telephone Vandeleer, Doc, and ask him to come over to see you this afternoon."

"Not on your life! I'll be no party to a murder."

"Just thought I'd ask you, just thought I'd ask you," he sing-songed. For some reason he seemed immensely pleased with himself and left as abruptly as he had come.

Now I should have rung up police headquarters at once. Perhaps I was afraid of what Evans would do to me. Instead I rang up Vandeleer who had some one answer that he was too busy to come to the 'phone.

I grabbed up my hat and started on the run for Vandeleer's office. It was no use. He was too busy to see me although I explained that it was a vital matter.

Two days later, Vandeleer was dead—murdered. The newspapers stated that he had been murdered by one of his patients who had drawn a revolver on him in the operating room. The patient escaped.

I knew better. I cussed myself for my procrastination. I rang up Ahearn as soon as I heard the news and asked him to come up to see me at once.

When he was seated by my side, I told him what I knew. He whistled. "That's a peach," he exclaimed. "I've got it. That devil must have dressed in a woman's clothes and got by Vandeleer's guards. I'll see that they get on his trail."

"Can you keep me out of it, Ahearn?" I asked anxiously. "This is the second time I've had to ask a favor of this kind."

"I'll fix it. Don't you worry." He patted me on the back comfortingly. "If I don't miss my guess this fellow will be strung or in an electric chair within six months."

They found Evans in an East Side dive. He was raving like a lunatic. They got his confession. I felt comfortable after they got him behind the bars.

(To be continued.)

Diagnosis and Treatment

A New Method for Detecting Drug Habitues.

Harold C. Lane, of Denver, states: The finger of a suspected opiophagic patient is stabbed with an automatic lance. The blood is drawn into a Gowers's blood pipet holding two cm. This is expelled into a small test tube five by five-eighths cm., containing one c.c. of normal saline solution. This is repeated for five more salinee tubes. The tubes are numbered 1-2-3-4-5-6. Shake each tube gently immediately after the blood is introduced. Prepare two more saline tubes and number them 7 and 8. If any shreds or clots of blood should be present, remove them with a sterile platinum wire. As a rule they will not be present.

Tubes 1 and 2 are controls, containing only saline solution and blood. To tubes 3 and 4 add .2 c.c. of a 1-100 solution of morphine sulphate in distilled water. The solution should be neutral, it must not be either acid or alkaline, therefore it should be tested with red and blue litmus paper and with phenolphthalein and methyl orange indicators. To tubes 5 and 6 add .2 c.c. of a 1-200 solution of morphine sulphate made with a good grade of the drug in distilled water. Tubes 7 and 8 contain the blood of normal individuals.

After standing at room temperature out of the light for from twelve to twenty-four hours or even less, tubes 1 and 2 (controls) show complete inhibition of hemolysis with a clear supernated fluid. Tubes 3 and 4 show almost complete inhibition of hemolysis with a very cloudy supernated fluid. This flocculent flaky appearance is the positive test for a drug habitué. Tubes 5 and 6 show a modified flocculent appearance of supernated fluid. Tubes 7 and 8 (true controls of normal blood) show a clear supernated fluid with complete inhibition of hemolysis. I would like to caution the investigator that upon agitation of the tubes, the flocculent deposits settle to the bottom of the tubes. The tubes should be placed against a black background in order to accurately interpret the results, as a clear bright light obscures the readings.

It is also possible that the reaction takes place with any of the narcotic drugs such as heroine, codeine, and others. The blood of a drug user has amboceptor with at least one narcophore binding cell which has an affinity for the drug the patient is taking. This is a rapid method of testing the blood of a drug addict as the blood does not have to be passed through the lower animals to secure antiserum. All the glassware should be sterile, the technic is simple and anyone can do the test. The test may also be done with rabbit serum which has been sensitized with the blood serum of a drug habitué.—(*N. Y. Med. Jour.*, Aug. 14, 1920.)

Consideration of Principles of Treatment of Chronic Empyema.

From the foregoing historical review it is found that, although empyema has been recognized and treated for twenty-six centuries, it is only sixty years since a round rib first was resected for drainage. During the next thirty years attention was directed solely toward collapsing the thoracic wall for obliteration of the cavity. The most radical stage was reached in the complete Schede resection. Since that time the trend has been toward increasing conservatism, the first real contributions in this direction being those of Delorme and Fowler. It has also become more clearly and generally recognized that there is a considerable variability in the pathologic and clinical aspects of the disease.

Carl A. Heblom, of Rochester, Minn., says the first essential is a clear conception of the cause of chronicity and of the pathology involved. Since chronic cavities and residual sinuses are often but different stages in the same case, the two conditions are considered together. It should be recognized, however, that each may exist independently.

The most common causes of persistent fistula, apart from chronic cavities, are osteomyelitis of the rib, bronchocutaneous fistula, extreme sclerosis of the walls of the sinus, foreign bodies, and, occasionally, tuberculosis. The common causes of a persistent cavity are inadequate drainage; pneumothorax, whether from early open drainage or from a ruptured subpleural abscess resulting in more or less complete collapse of the lung not yet fixed by adhesions; too late drainage after the lung has become fixed firmly in a collapsed position; persistent bronchial fistulas; the presence of foreign bodies; reinfection; and tuberculosis. Of all these factors insufficient drainage is the most common. As a result of the prolonged suppuration a pyogenic membrane which may be 1.25 cm. or more thick is formed. This membrane tends to prevent expansion of the lung even after the primary cause is removed. Treatment should naturally be designed, so far as possible, to remove the cause. Dependent drainage and removal of necrosed rib or foreign material are simple procedures, yet they often bring about a cure after years of chronicity. If a bronchial fistula is present its closure is usually a prerequisite to healing.

The pathologic condition often can be recognized only in part. Conditions of the lung with respect to tuberculous and other sclerotic changes are often difficult to determine. If an extensive pulmonary tuberculosis is present, or if the bacilli are demonstrated in the pleural exudate, or the typical microscopic picture is found in the sectioned pleura, the diagnosis is established. A history of a primary pleurisy with serious effusion, later becoming purulent, is also at least very suggestive. Often, however, the history and findings are indefinite and uncertain. Primary tuberculous empyema, secondarily infected by injudicious drainage or from within, may present a typical picture of the ordinary suppurative pleurisy.

Whether or not the lung is capable of expansion is difficult to decide with any certainty. Various methods to ascertain this have been described, mostly based on a decrease in the size of the cavity during forced expiration. Obviously such a determination may be more a measure of the relative rigidity of the thickened pleura than the elasticity of the lung. Reineboth's ingenious method, depending on the changes in pulmonary circulation that result in increasing the intrapulmonary pressure in a lung that is still expansible but in which changes do not occur if expansibility is lost, unfortunately has not so far proved of practical value. The mechanism by which a collapsed lung expands is of much practical importance and the subject of much difference of opinion. The presence of an intrapleural pressure less than atmospheric and the reason for this so-called "negative" pressure is an elementary fact in physiology. It is also recognized that if an opening is made into the pleural cavity, the lung collapses from equalization-pressure on the two sides of the lung alveolus. Other factors of the first importance to the clinical application of these fundamentals until recently have received but scant attention. Among such factors are the size of the opening in the chest wall in relation to the size of the glottis, the presence of adhesions between the lung and the chest wall, the mobility of the mediastinum, and the vital capacity. The importance of the relationship between the opening in the chest wall and the glottis was recognized by Houston. He asked van Swieten if a person wounded in both sides of the thorax would die. On being answered in the affirmative Houston produced a small normal dog on which he had opened both pleuras three days before. This astonished van Swieten, who repeated the experiment and was persuaded that when air entered the two pleural cavities the wounds were fatal only if the two openings combined were larger in area than that of the glottis. Later Cruveilhier repeated these experiments. It remained for Graham and Bell, however, to point out the great importance of the relationship to the treatment of acute empyema. They showed that in acute cases, owing to the mobility of the mediastinum, the two pleural cavities react as one to changed intrathoracic pressure. Lowering or neutralizing the negative pressure on the one side changed the pressure the same on the other side. Graham showed that the absolute size of an opening in the chest wall, compared with that of the glottis, depends on the vital capacity at the time. Thus a man with healthy lungs can withstand a much larger opening than one with pneumonia or poorly developed lungs.

These considerations are of fundamental importance in the treatment of empyema. The large number of variables involved explains, at least in large measure, the apparently divergent experiences and opinions on the subject of acute pneumothorax. In chronic empyema, because of the fixation of the mediastinum and the presence of pulmonary adhesions, the two pleural cavities function independently. For this reason a wide opening on the affected side does not produce respiratory insufficiency.

The mechanism by means of which the lung re-expands has been variously explained. Roser held that it was by the progressive growth of adhesions along the margins of the cavity, the contraction of which pulls out the lung. Weissgerber, on the other hand, held that lung expansion is due to increased intratracheal pressure during expiration, resulting in a summation expansion of the lung. The different conceptions are reflected in the variety of devices for increasing the intratracheal tension, on the one hand, and for decreasing the tension in the pleural cavity, on the other. More recent opinion is also divided. Physicians still use pleural suction. Perhaps the majority, however, are of the opinion that the lung, when free, expands essentially because of the increased tension from within the bronchi, during coughing, straining, or other effort involving closure of the glottis, and that closed drainage, valve action, a pus-soaked dressing, and the like are used chiefly in helping to hold the amount of expansion gained. There is much clinical evidence also indicating that progressive adhesions help to hold the lung out, once it is expanded.

Some surgeons believe that adhesions are always detrimental. Thus Lloyd, on the principle that the adhesions tend to prevent expansion, routinely separated them at operation. He reported cases of 225 patients treated in this manner, but with less than 50 per cent. complete cures and 20 per cent. mortality. Homans has expressed the belief that adhesions in the early stage are often the cause of chronicity, but that fixation of the lung to the diaphragm favors expansion.

In chronic empyema the greatly thickened membranes prevent the action of the mechanism which brings about expansion of the lung. If these membranes are removed, incised, or disintegrated, the same mechanism again comes into play, provided the lung has retained its elasticity.

At operation it is often observed that when the patient coughs or strains the liberated lung expands in response to the increased intratracheal pressure. In the after-treatment, as in the acute condition, the same factors favor permanent expansion. In the cases in which cavity obliteration occurs following the liberating action of Dakin's solution, it can be determined when operation is performed for a small residual cavity, that the lung is adhering progressively at the periphery of the cavity. Dunham observed at necropsy, in cases in which Dakin's solution was used, that the walls of the cavity were covered with granulations favorable for adhesions, while in those in which there was no treatment a shaggy fibro-purulent deposit was found. In case of reinfection these adhesions tend to break down and the cavity enlarges.

Tuffier, Stevens, and others have reported series of cases in which, after sterilization, the tubes were withdrawn and the pneumothorax left to itself, but this method has resulted in many recurrences. If the treatment is succesful, the lung apparently expands in proportion as the air absorbs, but in some instances cavities have persisted for months. It seems reasonable to believe that such treatment is more suitable in recent cases than when the condition has persisted for years. To what extent an increasing pulmonary circulation, incident to deep breathing exercise and other effort, aids in bringing about expansion, can not be stated, but some experimental evidence has been found to indicate that an increased circulation in the capilaries tends to expand the lung alveolus

In cases of tuberculous empyema a large cavity may persist for years without any tendency toward lung expansion. At operation in some such cases it is found that the pleura is not appreciably thickened; the failure to expand is probably due to a fibrosis of the lung by which it has lost its expansibility. Fibrosis seems to occur also in long-standing pyogenic empyema.

Aside from considerations of etiology and pathology, the guiding principle in the choice of treatment should be conservatism. Chronic empyema is not necessarily incompatible with years of life and usefulness. In such cases it may be questioned whether radical treatment involving considerable loss of function is ever indicated. It would certainly seem difficult to justify a high mortality, particularly if a safer and more effective method is available. Shortening convalescence is often mentioned as one of the arguments for a radical procedure, but it seems that shortening convalescence does not justify an increased mortality. In the choice of a method of treatment the first consideration, therefore, should be the life of the patient, the second, the preserving of function, and the third, the shortening of the convalescence.—(*Annals Surg.*, Sept., 1920.)

Deductions From Studies of the Schick Test.

Arthur I. Blau, diagnostician of the New York City Board of Health finds that more than a third of the children under fourteen years of age are susceptible to diphtheria, that is, have no natural immunity against the disease. The greatest susceptibility is found between one and six years. After the age of six years, the degree of susceptibility gradually diminishes, as shown by our negative Schick tests. Of a total of 227 negative Schick tests, 136 were between the ages of six an fourteen years.

Although the immunity produced by active immunization with toxinantitoxin was not quite 100 per cent. in our series, we can safely deduce that with repeated tests and injections, immunity against diphtheria could be produced in 100 per cent. of the cases. Naturally such results require the diligent co-operation of the patients.

Of our ten retested cases, eight were negative and only two were positive, showing that with only one series of three injections of toxinantitoxin, we were able to produce an immunity against diphtheria in eighty per cent. of the cases. Had two positive retested cases returned for further injections, there is no doubt in Blau's mind that we could have made them react negatively to the Schick test, giving us an active immunity in one hundred per cent. of the cases.

Whether the immunity is permanent in all cases, he cannot positively state. Judging from the studies conducted at the Willard Parker Hospital, once an immunity is established it is probably permanent.

To have success crown our endeavors it is necessary to popularize the Schick test and active immunization both among the profession and the lay public. To begin with, doctors have to familiarize themselves with the technic of the test and the injections. Once that is done, they can urge upon their patients the advantages to be derived from the application of the test and active immunization. The Department of Health is conducting clinics in the different sections of the city, where doctors are instructed on the theory and practice of the test and immunization.—(*N. Y. Med. Jour.*, Aug. 28, 1920.)

Causes of Emotivity and Their Management.

Perturbations of emotion are frequent causes not only in inefficiency, but also of ill health of the body itself. According to Tom A. Williams, Washington, D. C. Many physical conditions are characterized by disturbances of feeling, emotion. Intoxications, many infections and visceral diseases all disturb the emotions, and often seriously. So do many diseases of the nervous system itself, such as cerebrospinal syphilis, disseminated sclerosis, neoplasms, and what are called the great pychoses. These are all disorders of somatic source, the emotional disturbances being incidental, and not susceptible of being dealt with fruitfully by psychologic means; for only the disappearance of a diseased bodily state will dissipate the morbid emotion in cases of this kind. The treatment of morbid emotions of this kind depends on the finding of the situation, the prospect of which determines the emotion.—(*J. A. M. A.*)

A Test for Hysteria.

I wonder how many know of this test for hysteria? How many know that real hysteria presents an insensibility of the epiglottis which may be demonstrated very easily. Introduce the finger into the mouth and place it on the base of the tongue. It will be found that the epiglottis may be touched, displaced and even scratched with the nail without producing the least regurgitation. This is a sure and positive sign of real hysteria.—(*Dr. T. D. Adlerman, in Therapeutic Digest.*)

The Towns Hospital Enlarges its Scope.

The Charles B. Towns Hospital, of New York City, whose success in the treatment of cases of alcoholic, narcotic and tobacco addiction has been most gratifying, in a card to the profession indicates a new and enlarged phase of the work of this hospital. The institution will now care for post-operative and medical convalescents, also the definite medical treatment of toxemic disorders due to faulty metabolism, etc. It is completely equipped in all departments: hydro- and electro-therapy, massage, dietary, gymnasium and out-door exercise in charge of physical director, glass enclosed solarium on roof overlooking Central Park.

Accommodations of exclusive character and non-institutional atmosphere; terms varying according to location of rooms. Both sexes received. Non-resident patients treated. Personal inspection invited. Call or write the Charles B. Towns Hospital, 292 Central Park West, New York.

A Vacation Suggestion.

The call of the wild will soon be heard, when young and old will seek change and recreation from the regular daily routine. Off to the country, to the mountains, to the seashore, to the lakes, hundreds of thousands will travel to seek much needed rest.

Unfortunately, travel is not without its dangers, and one of the dangers which no traveler can avoid is that of contaminated water supply, in which may lurk the infection of typhoid fever.

Wise travelers and vacationists no longer fear this danger, because they practice the theory of prevention first, and protect themselves by anti-typhoid vaccination, just as the soldiers were protected during the war.

Physicians and druggists will do well to urge their patients, customers and friends to take advantage of this protection, to let their preparations for vacation include anti-typhoid vaccination as one of the most important items.

Typho-Serobacterin Mixed is the product preferred by many physicians for this purpose, because the serobacterin produces a much quicker immunizing response, the doses can be administered at shorter intervals, and the reactions are usually milder than with the ordinary non-sensitized bacterin. Furthermore, being a mixed bacterin, it affords triple protection, against the typhoid, paratyphoid A and paratyphoid B infections.

Further information and literature on this subject may be obtained free, by writing to H. K. Mulford Company, Philadelphia, Pa., and mentioning this publication.

Spirilloysis and its Causation.

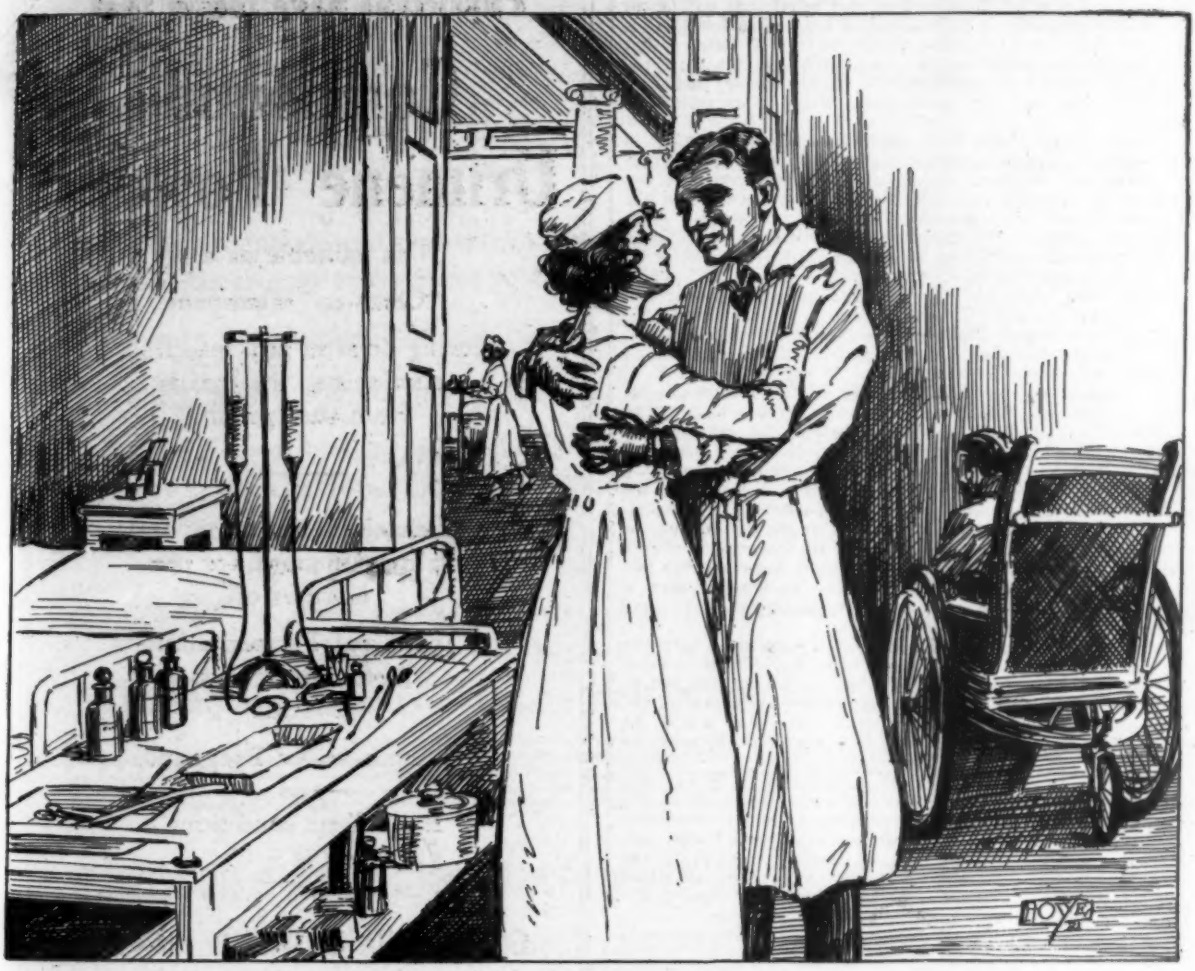
Lancet, November 13, 1920 (Amand Routh), sasy: "It is known now that the spiral of the mature spirochete is able under the action of various substances or even by spontaneous spirilloysis, to break up into "granules" generally by a transverse division—these and many other facts—make it probably that the spirochete may become ganulosed during pregnancy, and it also makes it possible that in some cases infection may be by means of granules and not by the mature organism." "The possibility of the ovum being fertilized and infected by the semen, and of the woman being infected through the foetus is not yet proved, but I believe it is true, for minute granules could be readily conveyed by the spermatozoa or in the seminal fluid and kept latent by the chorionic ferments." Occasional birth of an apparently healthy child amongst series of dead or infected children can be explained by the chorionic ferments destroying absolutely the granules formed by its spirilloytic action.

The Precipitin Reaction in the Diagnosis of Gonococcus Infections.

G. H. Robinson and P. D. Meader give procedure of test: for each specimen to be examined 0.25 c.c. of diluted clear serum from two immune and one normal rabbit are placed in serological test tubes. The clear extract of the specimen to be tested is layered over the serum in the same amount. The tubes are incubated for one hour at 37° C. and are allowed to cool before readings are made.

Conclusions: A positive precipitin test is obtained in all cases where the gonococcus can be found in the discharge. A positive precipitin test is found in specimens from many patients whose history and clinical symptoms point to gonorrhea but in whose discharges the gonococcus cannot be demonstrated. The precipitin test is of value in the diagnosis of vaginal and other specimens where the microscopical demonstration of gonococci in the discharge is difficult or impossible. —(*Jour. Urol.*, December, 1920.)

$300 IN PRIZES



What is the best title for this picture?

For the best title to the picture above The Medical Times will award prizes as follows:

First Prize	$150.00
Second Prize	$100.00
Third Prize	$50.00

The contest will be governed by the following

RULES

By "best" is understood that title which most cleverly describes the situation shown in the picture.

No title submitted shall consist of more than ten words.

The contest is open to physicians, medical students, interns, nurses, and advertising patrons.

The contest is now open. It will close October 1, 1921.

All titles should be addressed to The Contest Editor, of MEDICAL TIMES, 95 Nassau Street, New York, N. Y. Envelopes should contain nothing but the competing title and the name and address of the sender, plainly written, all on the same sheet. Readers and subscribers to MEDICAL TIMES are cautioned not to enclose checks or payment for old or new subscriptions, or changes of address, in correspondence for Contest Editor, as letters for the Contest will not be opened until October first.

Titles will be judged by three members of the MEDICAL TIMES Staff and their decision will be final.

In the event of two or more persons submitting the titles which are considered the best, second best or third best each will receive the prize offered.

Titles may be original or may be a quotation from some well-known author. Contestants may send in more than one title.

The final award will be announced as early as possible after the close of the contest. Of this due notice will be given. Checks will be sent simultaneously with the announcements of the award.

The Medical Times Company
95 Nassau Street - - New York

A New Preparation of the Vitamines.

Everybody is talking about the vitamines, and it is the almost daily experience of the practitioner to be called upon to explain the nature of these curious and mysterious substances and their relationship to the welfare of the human body. It is quite possible that even some physicians are not aware that there is but one available preparation that contains the three known vitamines, the preparations most popular just now containing only one, the antineurotic vitamine or water-soluble B.

Recently Parke, Davis & Co. announced the deveolpment in their Research Laboratories of a physiologically tested product containing the three vitamines. This preparation, called Metagen, is supplied only for the use of physicians, in the form of capsules of 5 grains each of the powder.

Metagen contains (1) the fat-soluble vitamine "A" found in the fresh milk and butter of healthy cattle, in cod-liver oil and some plants; (2) the water-soluble vitamine "B," which exists in yeast, nuts, and the husk and germ of grains; and (3) the water-soluble "C," the chief source of which is the citrus fruits—oranges, limes, etc., and certain vegetables.

It is a well-established fact that each of the three types of vitamine, fat-soluble A, water-soluble B and water-soluble C, plays a specific rôle in nutrition. To insure normal physiologic function, all three must be present in the body. The absence of one or more is in all probability the cause of the various deficiency diseases. Thus, a lack of the fat-soluble A vitamine is apparently the cause of rickets, pellagra, and dental caries, in the latter case associated with a deficiency of the calcium salts. The absence of the water-soluble B is responsible for the appearance of polyneuritis or the beriberi of the Orient, and for failure of growth in artificially fed infants. The water-soluble C vitamine is essentially antiscorbutic, and its absence from the dietary, as of sailors on long voyages, is responsible for the appearance of scurvy among the crew, and for infantile scurvy as well.

As the vitamines are not harmful, it is manifestly better in the treatment of deficiency diseases to prescribe a preparation in which all of them are present, rather than to risk failure by the use of a single vitamine. The same may be said of the treatment of convalescence from acute illness, in which the aid of the vitamines is invaluable in stimulating the nutritive processes.

The field for the use of Metagen is very wide. One has only to consider briefly the fact that a large proportion of the dietary of most town and city dwellers is in all probability lacking in vitamines. This is an age of canned foods, polished rice, artificial butter, condensed milk, white flour and other refinements of our twentieth-century civilization, all of which make for convenience, perhaps, but their general use presents a problem in nutrition that the physician is often called upon to solve. With the help of the three vitamines in Metagen his task should be materially simplified.

Discover New Anesthetic.

Discovery of a new local anesthetic to be used as a substitute for cocaine, in anesthesia, was recently announced by the University of Illinois, in whose laboratories the work was accomplished.

A further announcement to the medical profession is now made by The Abbott Laboratories, of Chicago, that this new anesthetic will be supplied by them and will be known as Butyn.

This new product is structurally related to both cocaine and procaine, but clinical tests have shown it to be superior to cocaine in practically every respect; for example, it is less toxic in the concentrations required for effective anesthesia; its solutions may be boiled without decomposition; it causes no dilation of the pupil of the eye, nor drying up of its secretions. It is less irritant than cocaine and much more rapid in its action. The anesthesia produced by Butyn is of longer duration and its solutions are slightly antiseptic.

No Harrison narcotic blank is required in securing Butyn, as it is without the habit-forming disadvantages of cocaine.

Clinical work done by Dr. Geo. F. Suker and Dr. H. S. Gradle, of Chicago, prove this new anesthetic useful as a substitute for cocaine. A two per cent. aqueous solution instilled into the eye will produce anesthesia so rapidly that operative work can commence at once, whereas from four to five minutes was formerly required where cocaine was used.

It is expected that this new discovery will soon be available for the profession. Further information may be obtained by writing to Research Department of The Abbott Laboratories, who have collaborated with the University of Illinois in developing this new anesthetic.

The Mucous Membrane and Alkalol.

It is a very significant fact that nature has provided the most efficient and antiseptic means for taking care of mucous membranes by supplying the latter with secreting cells which furnish a solution which is in every way able to take care of ordinary and sometimes extraordinary conditions, provided such solution if of normal content.

Unfortunately, however, no provision could be made against over-stimulation of such cells which leads to their hyper-secretion, and as a necessary result, to modification in such secretions.

To attempt to substitute an artificial solution that exerts antiseptic action and effect in the test-tube is not the most rational or most effective way to overcome the difficulty. On the other hand, it is axiomatic that to feed exhausted cells and thus enable them to regain normal secretory ability, to overcome congestion, to avoid adding to the disturbances of osmotic balance is the best and the most natural way to overcome the difficulty.

This is why Alkolol is so successful when used upon mucous membranes. It is composed of physiological salts which have been very carefully selected with a view to meeting the needs of mucous membrane cells. Its salinity and alkalinity have been carefully worked out. Its tenicity is important. Alkalol is hypotonic, which means that instead of provoking secretion by causing a flow from the cell outward, it reverses the process and passes its saline constituents into the cells. Alkalol is soothing and healing to a degree, and even a superficial trial of this preparation would convince the most skeptical medical man or specialist that it is worthy of a place in his armamentarium.

The number of Alkalol users is great, but any physician who has not yet become acquainted with it may do so by writing for sample and literature to the Alkalol Company, Taunton, Mass.

The Bloodless Phlebotomist.

In the Comedy Relief section of the May issue of "The Bloodless Phelebotomist" a delightful satire entitled "Too Late Now." by James Montague, gives a mirthful view of gland transplantation vs. euthanasia at sixty. This is only one of several worth while features of this publication. J. Petrie Hoyle, M.D., the first American physician to serve in Flanders during the World War, contributes a very interesting article on war injuries, and the article on "Treatment of Inflammation of the Fallopian Tubes," by Dr. J. Sidney Eason, Coldwater, is well worth reading.

If you have not received this little journal a request to The Denver Chemical Mfg. Co., New York City, will bring, without expense to you, the May number as well as future issues.

The Treatment of Tetanus.

Among some of the central African tribes, the adult males knock out the two lower front teeth in order to facilitate prompt treatment and feeding during an attack of tetanus. This is evidently to be regarded as a kind of general preparedness measure against an expected and definite eventuality for a large percentage of these people. Experience, which is their educator, has shown that such a procedure will increase their chances of recovery and they act accordingly.

A physician in our country does not send to the dentist a patient who suffers from an injury which may result in tetanus. He does not need to prepare him for treatment of the developed disease, but he should always prepare him against the possibility of its onset.

Science has demonstrated that thorough mechanical cleansing of all wounds likely to be contaminated with tetanus bacilli—the *débridement* of the French—together with the subcutaneous injection of 1,500 units of tetanus antitoxin will prevent the development of tetanus in the great majority of cases. A second injection of antitoxin ten days later in indicated cases will almost surely protect. In civil life, every case of tetanus should represent the carelessness, ignorance and thoughtlessness of the patient rather than the negligence of the doctor to administer antitoxin or to perform his function as an educator.

In such cases, antitoxin is meeting with increased success. Broadened experience in intravenous and intraspinal medication as well as the use of much larger and therefore much more efficient dosage have contributed to this result.

Physicians want an antitoxin which is potent, pure and highly concentrated to safeguard the patient's interests. After that they want a convenient package, a syringe which is free from perplexing and annoying details and as nearly as possible ready for immediate use. Such a product, such a package and such a syringe is to be had bearing the Lilly label.

Roentgen-Ray Treatment of Cutaneous Cancer.

The treatment of basal-cancer with carbon dioxid snow, the electric needle, superficial curettage and burning with superficial caustics is mentioned by H. H. Hazen, Washington, D. C., only to be condemned. A really good surgeon can do excellent work both in curing the disease and in leaving an excellent cosmetic result; but a less skilled surgeon can hardly equal the results of the expert roentgenologist. Surgery has the advantage of cleaning up a lesion much more rapidly than does the roentgen ray, but only too frequently the desire of the surgeon to produce a good cosmetic result leads him to excise too little tissue so that a recurrence is inevitable. Hazen believes that it is infinitely better to use an anesthesia and the actual cautery in preference to any of the caustics. The vast majority of patients who have once had a caustic used have no desire to repeat the experience unless they are devotees of martyrdom. There is every reason to believe that the action of the roentgen ray and radium on skin cancer is practically identical. In Hazen's series of cases, five that refused to yield to the roentgen ray also refused to yield to radium.—(*J. A. M. A.*)

Sickness Among Steel Workers.

Statistics of sickness lasting for one week or more among the members of the sick-benefit association of a large Pennsylvania steel company for the two years ending July last, as compiled by D. K. Brundage for the U. S. Public Health Service, show somewhat surprising results. Respiratory disease, such as influenza, grippe, and pneumonia account for 50 per cent. of all cases; and bronchitis, pleurisy, and tuberculosis add 11 per cent. more. Rupture and infection together account for 4 per cent., not including occupational infected wounds. General debility, which applies to men no longer able to work in the mills, accounts for 1.5 per cent.; the average age of these men was 68 and their employment had lasted an average of 40 years. In duration for which sick benefits were paid, the diseases (excluding general debility) ranked as follows: rheumatism, appendicitis, tuberculosis, typhoid fever, intestinal diseases, nervous prostration, kidney disease, heart disease, sore eyes, etc.

Making School Children Fit.

To determine at what cost all of New York's 800,000 school children could be made physically fit and kept in good health, the City Department of Health has established an experimental health station in Public School 43, Manhattan.

The three thousand pupils of this school are to be given the most efficient health care possible under the direction of Dr. S. Josephine Baker, head of the Bureau of Child Hygiene. In remedying all physical defects found, the bureau is to be assisted by the New York County Chapter of the Red Cross and the physical education, household economics, nursing and health departments of Columbia University.

More than a thousand pupils in the school have been found to be undernourished in the preliminary examinations made. A start has already been made in teaching these children and their mothers how to correct this condition by nutrition workers provided by the Red Cross. Public Health and nursing students of Columbia University are assisting with home visiting and instructing parents in how to improve the health of their children.

A doctor and nurse have been installed in the school to examine each child and advise the parents regarding physical defects such as diseased tonsils and adenoids, poor vision and hearing. Ordinarily there is only one doctor to each six schools and a nurse to each three schools. A dentist has been provided by the Red Cross to give treatment to children most in need of it. To determine susceptibility to diphtheria, the Schick test has been given to the entire school. Those who have been found to be in danger of developing the disease are to be given toxin injections on consent of their parents.

The experiment is expected to show the minimum amount of health supervision necessary to keep school children up to a 100 per cent. standard of health.

Diagnosis of Disease of Gallbladder.

The more characteristic biliary tract syndromes are summarized by Lewellys F. Barker, Baltimore, as follows:

Acute Cholecystitis (Mild).—Mild "indigestion"; slight pain and tenderness in the right hypochondrium; sometimes, a palpable gallbladder; slight fever and slight polymorphonuclear leukocytosis; symptoms often subsiding in a few days on rest in bed, light diet and local thermotherapy.

Acute Cholecystitis (Severe).—Symptoms more severe than in the preceding; nausea and vomiting common; gallbladder distended and very painful on palpation as a rule; upper right rectus rigid; leukocytosis of from 12,000 to 20,000; fever; sometimes chills, especially if exudate is seropurulent; signs of peritoneal irrigation; need of immediate operation. If the patient is very toxic, the gallbladder may be gangrenous. The condition may be mistaken for acute appendicitis or for acute peritonitis due to perforation of a gastric or a duodenal ulcer.

Chronic Cholecystitis. With or Without Gallstones.—Attacks of "indigestion" or "biliousness" ("gallbladder dyspepsia," "inaugural symptoms") with fulness, weight and distention after meals, relieved by belching, but often followed by soreness and stiffness in the right hypochondrium lasting a few days. Sometimes there are characteristic attacks of biliary colic, most often nocturnal, with severe pain in the epigastrium and in the right hypochondrium, radiating to the back and often to the right shoulder, accompanied by gaseous distention and often by vomiting; and not infrequently requiring morphin for relief. The gallbladder may or may not be palpable (it is often shrunken). Tenderness on pressure in the gallbladder area is usually present. Roentgenograms may, or may not, show the presence of gallstones; they may reveal displacement of the pylorus upward and to the right, and distortion of the duodenal cap or of the pyloric and of the stomach, especially if there is a complicating adhesive pericholecystitis. Impairment of the general health is common.

Acute Infectious Choledochitis.—After an attack of biliary colic, jaundice develops with enlargement of the liver, tenderness in the midepigastrium and to the right of this, with fever and leukocytosis. If a stone is passed, the infection may subside quickly. Colic may or may not occur. Recurring pyrexia with chills and sweats (intermittent fever of hepatic origin) points to purulent cholangitis. There is persistent jaundice with bilirubinuria. The gallbladder is rarely palpable because usually small and shrunken from coexistent chronic cholecystitis. Operation is indicated.

Chronic Catarrhal Cholangitis (Calculous or Noncalculous).—Chronic intermittent jaundice; sometimes, attacks of biliary colic; fever may be absent, or temporarily present; slight leukocytosis in exacerbations; may be confused with (1) carcinoma compressing the ductus choledochus or (2) hypertrophic biliary cirrhosis.

Biliary Obstruction with Distention of Gallbladder Due to Chronic Pancreatitis or to Carcinoma of the Head of the Pancreas.—Maximal jaundice (after gradual onset and steady increase without recession) with complete intestinal acholia, bilirubinuria and pruritus; usually entire absence of pain and fever; large, easily palpable gallbladder. Sometimes, a tumor is palpable in the epigastrium. Tendency to emaciation and cachexia greater in carcinoma than in pancreatitis. Glycosuria present in 25 per cent. of the cases. Operation indicated, and often too long delayed in the hope that only catarrhal jaundice exists.

Hydrocholecystosis or Chronic Remittent Cholecystosis (With or Without Stones in the Gallbladder).—Brief attacks of pain without fever, recurring for months or years in the right hypochondrium, synchronous with recurring distention of the gallbladder, but without signs of local or general infection (Berg). A Riedel's lobe may be palpable, and, if so, may be mistaken for a mobile kidney, a hydronephrosis or a neoplasm.

Carcinoma of the Gallbladder.—Nodular mass palpable in gallbladder region, appearing in a patient who has earlier shown signs of cholecystitis or of gallstones; jaundice in 75 per cent. of the cases; ascites in 25 per cent.; metastases in the liver may occur early; cachexia is common. Operation, unless performed very early, rarely saves the patient. Death usually occurs within a few months.—(*J. A. M. A.*, Oct. 23, 1920.)

Original Stiefel's Medicinal Soaps.

Schering & Glatz, Inc., announce that they are now able to supply the following varieties: Aromatized Lac Sulphur, Boracic Acid, Ichthyol 5%, Resorcin, and Sublimate ½%. These are the most popular kinds, and for the present, no others will be stocked.

A glassful of skimmed milk when taken on retiring to bed is efficacious in preventing night sweats.